Exhibit A

07327

Payload/Orbiter

Requirement Study

Contamination Control

(NASA-CR-120572) PAYLOAD/ORBITER N75-14817 CONTAMINATION CONTROL REQUIREMENT STUDY, VOLUME 2, EXHIBIT A (Martin Harietta Aerospace, Denver, Colo.) 216 p HC \$7.25 Unclas CSCL 22B G3/18

Technical Report Volume II

Payload/Orbiter Contamination Control Requirement Study

Final Report
Exhibit A

Contract NAS8-30755

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SCOPE

- 1.1 <u>Purpose</u> The purpose of this document is to present the final computer printout of the configuration descriptions and geometric relationships used in the contamination impact analysis activity described in Volume I. The information presented is representative of the development of the contamination modeling effort to date. It can be extremely useful in understanding the geometrical relationships used in the model predictions established under this study.
- 1.2 Scope This document presents the computer printout data generated during the Payload/Orbiter Contamination Control Requirement Study, NAS8-30755. Contained herein are the computer listings of the input surface data matrices, the viewfactor data matrices, and the geometric relationship data matrices for the three Orbiter/Spacelab configurations analyzed in this study. These configurations have been broken up into the geometrical surfaces and nodes necessary to define the principal critical surfaces whether they are contaminant sources, experimental surfaces, or operational surfaces. A numbering scheme was established based upon nodal numbers that relates the various Spacelab surfaces to a specific surface material or function. This numbering system was developed for the Spacelab configurations such that future extension to a surface mapping capability could be developed as required.

2. APPLICABLE DOCUMENTS

2.1 Program Documents - The following documents shown form a part of this report in the extent that they were used for Program information and/or are referenced for supporting technical material relevant to this study.

PROGRAM DOCUMENTS

MCR 74-93	"Payload/Orbiter Contamination
	Control Requirement Study,"
	May 1974, Contract NAS8-30452,
	Martin Marietta Aerospace,
	Denver Colorado

Presentation "European Spacelab Design and Development Effort," Parts A, C, and F, July 1974, ESRO/ ESTEC.

SD72-SH-0071B "Orbiter Definition Handbook," Rockwell International,

February 4, 1974.

RFP AO/600 "Proposal for the Spacelab Design and Development Contract to ESRO/ESTEC," April 16, 1974, ERNO.

3. COMPUTER PRINTOUT DESCRIPTIONS

- 3.1 <u>Discussion</u> The computer modeling of the induced contaminant environment of a spacecraft such as the Shuttle Orbiter and the Spacelab configurations initially involves the geometric synthesis of all major spacecraft surfaces. These surfaces were synthesized on a CDC 6500 digital computer using the Scope 3.4.1 format. For this study effort, three separate Spacelab/Shuttle Orbiter configurations were synthesized based upon configuration data contained in the reference material delineated in the Applicable Documents Section of this volume. Input surfaces included all known Spacelab windows, vents, thermal control, and basic pallet surfaces along with the baseline Shuttle Orbiter configuration updated to known current design modifications. Vent and engine sources were modeled as geometric discs representative of a surface at the engine/vent exit plane emitting with the characteristic plume distribution of the particular source. The three Spacelab/ Shuttle Orbiter configurations analyzed in this study were:
 - a) the long module/short pallet (SL-1);
 - b) the short module/long pallet (SL-2); and
 - c) the pallet only (SL-3).

For each configuration, the Spacelab surfaces were assigned nodal numbers characteristic of the function or use of the surface being modeled. This numbering scheme allows for easy identification of a surface function and is directly applicable to the materials mapping of Spacelab surfaces if required. The Shuttle Orbiter surfaces retained the nodal number assignments (between 1 and 999) used in previous modeling efforts. The Spacelab nodal numbering scheme is presented below:

Node Number	Surface Function/Type
1000-1099	Thermal Control
1100-1199	Windows - viewing and experiment
1200-1299	Vents
1300-1399	Critical Optical Surfaces
1400-1499	Contamination Monitors

Similar surfaces on the three Spacelab configurations were assigned the same surface nodal numbers to further simplify surface function identification.

The resulting computer printout of the configuration view-factor model consists of three data matrices which will be described in following subsections. These data matrices are:

- a) the Input Data Matrix;
- b) the Viewfactor Data Matrix; and
- c) the Geometric Relationship Data Matrix.
- 3.2 Input Data Matrix Description This matrix consists of all the necessary input data required to completely describe the geometrical surfaces and configurations analyzed. Figure 1 is an example of the format of the input data matrix for selected SL-1 surfaces. Following is an outline description of the major items contained in this matrix (see Figure 1):
 - a) nodal surface number;
 - b) geometric surface type rectangle, disc, cylinder, etc;
 - sides of surface activated ability to emit or receive contamination;
 - d) surface shadowing capability;
 - e) surface ability to be shadowed;
 - f) surface rotation about major axis system;
 - g) point input data three dimensional input with respect to program axis system;
 - h) thermal property of surface emissivity; and
 - i) comment surface name and description.

```
SURF=1085. TYPE = RECT.ACTI VE=TOP. SHADE=80TH, 8SHADE=80TH
      ICSN=50 (f)
P1=1215.2,58.5,371.
      P2=1215.2.72.8.414.
      P3=1101.2,72.8,414. PROP=0..0.
      COM= + +Y INSTDE TOP PANNEL, X=1101.2 TO 1215.2 .
      SURF=1086, TYPE= RECT. ACTIVE=TOP, SHADE=80TH, BSHADE=80TH
         ICSN=50
      P1=1161.2,-58.5,371.
      P2=1215.2,-58.5,371.
      P3=1215.2.-34.5.344.3
      PRCP=0..0.
      COH= # -Y INSIDE GOTTOM PANNEL. X=1101.2 TO 1215.2 *
      SURF=1087. TYPE=RECT.ACTIVE=TOP. SHACE=BOTH.BSHADE=BOTH
S
         ECSN=50
      P1=1101.2.34.5.344.3
      P2=1215.2.34.5.344.3
      P3=1215.2.58.5.371.
      PROP=0..0.
      COM= * +Y INSIDE BOTTOM PANNEL, X 1101.2 TO 1215.2 *
5
      SURF = 1088 . TYPE = RECT.ACTIVE=TOP. SHADE=BOTH.8SHADE=BOTH
         ICSN=50
      P1=1101.2,-34.5,344.3
      P2=1215.2.-34.5.344.3
      P3=1215.2,34.5,344.3
      PRCP = 0 .. 0 ..
      COM = * PALLET BOTTOM.X= 1181.2 TO 1215.2 *
      SURF=1100.TYPE=DISC.ACTIVE=BOTH.SHADE=BOTH.BSHADE=BOTH
5
         ICSN=50
      P1=627..0..418.19
      P2=608.22.0..411.35
      P3=627.,25.,418.19
      P4=627.,25.,418.19
      PROP = 0..0.
      COM = * TUNNEL EVA HATCH X=627. SPACE LAB 1*
```

Figure 1. Computer Printout Example of Input Data Matrix

- 3.3 <u>Viewfactor Data Matrix Description</u> Viewfactor output data is contained in this matrix for all modeled Lambertian surfaces capable of impinging upon susceptible surfaces of interest. Figure 2 is an example of the viewfactor data matrix for a selected Orbiter surface to surfaces of SL-1. The outline below describes the main items of the viewfactor data matrix (reference Figure 2):
 - a) Node I emitting Lambertian surface number;
 - b) Node J receiving surface number from Node I;
 - c) computation verification flag of viewfactor calculation;
 - d) FE(I,J) W/SHAD viewfactor fraction of mass leaving Node I capable of impinging upon Node J considering third surface shadowing;
 - e) FE(J,I) W/SHAD reciprocal viewfactor fraction of mass leaving Node J capable of impinging upon Node I considering third surface shadowing;
 - f) FA(I,J) W/SHAD viewfactor same as d) used internal to program;
 - g) F(I,J) WO/SHAD viewfactor fraction of mass leaving Node I capable of impinging upon Node J if no third surface shadowing is considered;
 - h) SHAD. E Factor percentage of Node I not shadowed from Node J;
 - i) SHAD. A Factor same as h) internal to program; and
 - j) CP time computer time required for viewfactor calculation accumulative for each Node I.

(a)	6	COMPUTATION	(d) FE (1, J)	FE (J, I)	(E) FA(1,J)	F (E),	SHAD. E	SHAU. A	CP TIME
MO OF I	"PODE. J		W/SHAD	W/SH4D	H/SHAD	HO/SHAD	FACTOR	FACTOR	(SEC) I
20	1030	CAL.	.002388	.000167	.002388	.002388	1.000000	1.000000	1.554
20	1040	CAL.	.005851	.000408	.005851		1.000000	1.000000	1.822
20 20	1050 1060	CAL.	.052526 .003103	.019272 .002427	.052526	.059970	.875859 1.000000	.875869 1.000000	2.689 2.972
20	1065	CAL.	.009669	.017427	.009669	.009669	1.006888		3.505
20	1081	. CAL.	.003709	.098625	.083709	.003709	1.000000	1.000000	4,086
20 . 20	1082 1083	CAL. Cal.	.005846	.034052 .031716	.006747 .005846	-	1.000000	1.000000	5.075 6.012
20	1084	CAL.	.015514	011144	.015514	015514	1.000000	1.000000	6.447
70	1085	<u>"C</u> AL	.003710	002565	.003710	.003710	1.000000	1.000000	_6.772
20 20	1086 1087	CAL. Cal.	.011959 .006441	.010843 .005840	.011959	.011959	1.000000 .872652	1.000000 .872652	7.236 7.666
20	1088		.023784	.011221	.023784	.023784	1.000000	1.800000	8.036
50	1110	CAL.	.000008	.093024	.003008	.000057	137966	.137966	8.830
20 20	1111 1120	CAL. CAL.	.000032	.000036	.000032	.000032	1.000300 .380890	380890	9.071 9.424
20	1121	CAL.	.000127	.000228	.080127	.0C0127	1.000000	1.000000	9,657

Figure 2. Computer Printout Example of Viewfactor Data Matrix

- 3.4 Geometric Relationship Data Matrix Description This data matrix supplies the computer output information on the geometrical relationships between all Spacelab and Orbiter surfaces capable of viewing each other. This data is used in conjunction with the closed form mathematical source characteristics for sources other than Lambertian to determine contaminant fluxes at surfaces of interest. Figure 3 is an example of the geometric relationship data matrix for selected Spacelab/Orbiter surfaces. The outline below describes the major items depicted in Figure 3:
 - a) NODE I Source surface number;
 - b) NODE J Receiving surface number from Node I;
 - c) F(I,J) Viewfactor fraction of mass leaving Node I (Lambertian) capable of impinging upon Node J;
 - d) AREA Surface area of Node I in²;
 - e) THETI Angle that radius makes with Node I normal;
 - f) THETJ Angle that radius makes with Node J normal;
 - g) RADIUS Distance between Node I and Node J center points in inches;
 - h) NORMAL VECTOR Node I perpendicular vector (X,Y,Z components) normalized to amplitude of Node I surface area; and
 - i) POSITION VECTOR Vector (X,Y,Z components) from central axis origin to center point of Node I.

MODEL = CONTAM STEP = 1 PROCESSING OPERATION DATA					SHUTTLE CONTAHINATION STUDY (SPACE LAB1 (RECIEVING SHUTTLE))							
NODE I	NODE J	F(I.J)	AREA	THETI	THETJ	RADIUS	NO	RMAL VECTOR I	POSI	TION VECTO	IR, I	
a	(b)	©	⊕ -	<u>@</u>	(f)	(B)		b	•	1		
				1			-			-		
		- -						<u></u>				
120	1110	.000008	3.71E+03	13.70	89.88	4.02611E+02	3.71E+03	0. 1.44E-08	-4,702+02	-9.54E+01	8.00E+01	
20	1111	000032	3.71E+03	13.70	90.12	4.02611E+02	3.71E+03	0. 1.44E+08	-4.73E+02	-9.54E+01	8.00E+01	
20	1120	. 900083	3.71E+03	18.67	89.83	2.978832+02	3.71E+03	0. 1.44E-08	-4.70E+02	-9.54E+81	8.00E+01	
50	1121	.000127	3.71E+03	18.67	90.17	2.97883E+02	3.71E+03	5. 1.44E-08	-4.70E+02	-9.54E+01	8.0GE+G1	
20	1130	.000293	_3. ⁷ 1E+03.	24.36	23.75	2.48535E+02	3.71E+03	.0+1.44E-J8	-4.70E+02	-9.54E+J1	8.90E+01	
21	4440	.000008	7 745.62	13.70	90 99	. 036445433	3.71E+03	0. 1.44E-08	-4.78E+02	9.54E+01	8.00E+01	>
			3.71E+03			4.02611E+32	-				8.00E+01	
21		000032	3.71E+03	_13.70		4.02611E+02 2.97863E+02	3.71E+03 3.71E+03	0. 1.44E-08			8.80E+01	
21		.000083 •000127	3.71E+03	18.67				0. 1.44E-08			8.00E+C1	
21			3,716+03	18.67		2.97863E+02	3.71E+03				8.00E+01	
21	1130	.000286	3.71E+03_	22.75		2.45504E+02	3.71E+03	0. <u>1.44E-0</u> 8	-4.70E+02	7.746 701	0.000+01	

Figure 3. Computer Printout Example of Geometric Relationship Data Matrix

3.5 Spacelab/Orbiter Data Matrices - The following subsections contain the computer printout data matrices as previously described for the three Spacelab/Orbiter configurations. The subsections are organized such that all configuration, viewfactor and geometric relationship data is contained in one subsection for each Spacelab/Orbiter configuration (e.g. subsection 3.5.1 contains the SL-1/Orbiter data matrices, subsection 3.5.2 the SL-2/Orbiter matrices and subsection 3.5.3 the SL-3/Orbiter matrices). In addition, each configuration subsection commences with a computer drawing of the configuration indicating general locations/nodal numbers of the primary surfaces and a summary listing of all modeled Orbiter and Spacelab surfaces to facilitate the interpretation of the computer printouts.

As previously mentioned, the baseline Shuttle Orbiter model was employed with each of the three Spacelab configurations. Figure 4 illustrates the primary Orbiter nodal surface number locations used in conjunction with the three Spacelab models. These Orbiter nodal numbers were held constant for each of the Spacelab configurations. Only the primary Orbiter nodal surfaces number locations have been identified in Figure 4. A large number of different surfaces have been used to obtain the necessary fidelity to accurately define a particular surface shape. These surfaces are of limited use in an assessment and have not been included. Those surfaces depicted do represent the majority of surfaces necessary to understand the basic content of the presented computer printouts.

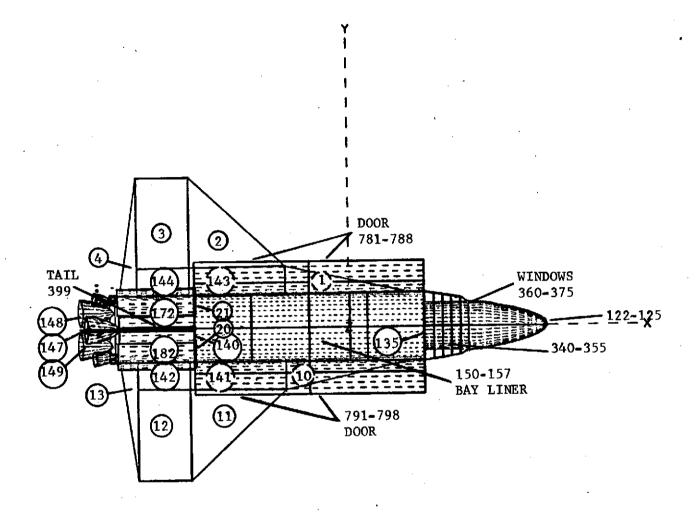


Figure 4. Primary Orbiter Nodal Surface Number Assignments

3.5.1 Spacelab-1/Orbiter Data Matrices - Figure 5 depicts the computer drawing of the modeled Spacelab-1 configuration indicating the nodal number assignments assigned to the primary Spacelab surfaces. (The Orbiter nodal assignments are depicted in Figure 4.) This is followed by a summary listing and description of the Spacelab-1/Orbiter nodal surfaces. The ensuing computer printouts contain the Input Data, Viewfactor Data, and Geometric Relationship Data matrices for the Space-lab-1/Orbiter configuration.

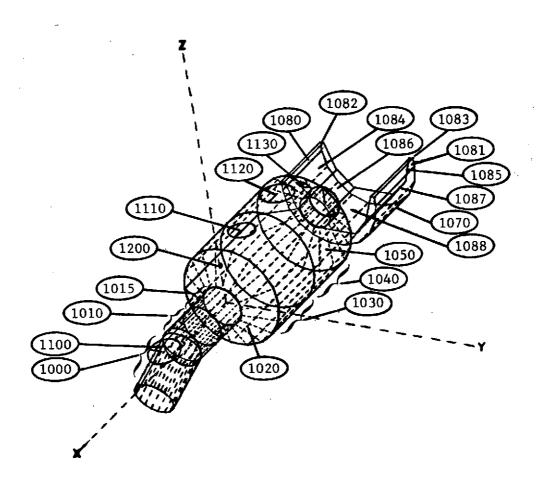


Figure 5. Primary Spacelab-1 Nodal Surface Number Assignments

							·
NCOE	60.2	ĀFEA	ALPH	EFTSS	SUPF. TYPE	ACTIVE	CCHMENTS
145	BCDY	2.687F+07	ű.	0.	TEAPEZOID	TOF	+Y REAR SITE TAPER
146	BCOY	2.677 + 03	0.	, j	TRAPEZCID	EOTTON	- Y. REAR SIDE TAPER
737	SCOY	2.827E+01	C.	ŋ.	DISC	BOTTCH	JULY 8 EVAP. 3 IN RAD.
708	PCDY	2.9276+01	0.	9.	CISC	TOF	ULY'S EVAP IN. RAC.
147	8 00 Y	1.858F+94	e.	0.	PARABOLCID	CUTSIO	TCP ENGIN
148	BEDY	1.858E+74	C -	9.	FARABOLCTO	CUTSIO	+ Y ENGIN .
149	8 CD Y	1.8586+94	C.	0.	PARABOLOID	CUTSIO	-v ENGIN
20	RCDY	3.711F+83	6.	9.	LISC	TOP	Y OHS SEALER
21	6004	3.7116+03	C .	0.	PIFC	10P .	+Y OWS SEALER
222	BCDY	2.5735+94	0.	0.	PECTANGLE	BOTTCH	- EACK RECT 7.350EG
2 Ĵ	8 00 4	1.6345+84	0.	0.	0150	TOF	PEAR END HALF DISK
4,0.7	9 CD Y	2.8276+01	6.	G .	CICC	TOP	EACK SIDE EVAPORATED
15	የተበሃ	2.8275+01	С.	0.	LIEC	TOF	PEAP END EVAPORATOR
10	ብርጣ¥	1.897E+74	0.	o .	TEAPEZOTO	BOTTOM	LFFT FRONT WING A
11	BCOY	4.0455+94	Γ.	0 .	TRAPEZCIO	TOS	LEFT MIDDLE WING BACK-P
141	BCDY	2.5 COF+04		0.	RECTANGLE	106	T ES INNER WING
12	BCDY	4.4E2E+04	Ē.	C.	RECTANGLE	TOP	LEFT BACK RECT. WING C
142	BCDY	1.4348+74	ć.	3.	RECTANGLE	TOF	INNER WINE C
ίš	BONY	1.512E+64	e.	0.	TEAFE7010	TOP	LEFT WING TAIL EDGE
1	BCDY	1.878E+54	€.	0.	TRAPFZCIO	TOF	FRONE WING TRIPNGLE RT.A.58
2	BCDY	4.0456+84	c.	0.	TRAFEZCID	BOTTOM	PIDDLE HING TRAP. PT B
143	8 CO Y	2,5695+54	۲.	D .	FECTANGLE	POTTCH	B +Y RECTANGLE WING
_ 3	₽CD¥	4.4425+94	3.	0 •	FECTANCLE	BOTTOM	BACK NING PECT. RTC .129
144	ቦርብ ት	1.4345.624	С.	9.	FECTANGLE	EDITCH	INNER WING C RECT
4	нспу	-1.012F+84	0.).	TRAPEZOTO	POTTCH	HING TAIL FLAF RT 1453,1507
150	BCDY	2.874F + C4	-c.	-0.	CYLINDER	INSIDE	PAY AREA CYLINDER
151	BCTY	7.8848+04	- ₹,	-).	CAFLINDER	INSTDE	HAY AFFA CYLTNOER
152	B (10 Y)	2.804F+04	-0.	-0.	CYLTHOEF	INSIDE	BAY AREA CYLINDER
153	BCDY	2.8C4F+C4	- E .	- C .	CALINUED	INSTDE	-BAY AREA CYLTHDER
194	RODY	2.804E+84	-C.	- i) .	CALINGER	INSTEE	PAY APEA CYLTNOFR
155	8 00 Y	2.8045+64	- C .	+ f) .	CYLINDER	THSTOP	BAY AREA CYLINDER
156	A CD ¥	2.8045+64	÷ e -	-0.	CATINDER	INSIDE	BAY AREA CYLINDER
157	8 C () Y	2.8^4E+C4	-0.	- 7 -	CAFINDES	TNSIDE	PAY AREA CYLINGER
140	BCÔY	- 3.2F9F+04	-0.	-i) .	015C	TUB	ENG BAY AREA DISK
135	e.cb ¥	3.269F+74	-t.	- 0	. CISC	TOP	FRONT RAY ARFA DISK
122	1 CO Y	1.5276+04	-0.	-3.	FARABOLOID	CUISIO	VERY NOSE CONE
123	BODY	1.5278+04	- C .	-0.	PARARCECID	CUTSID	AEDA HOSE CONE
124	BCOY	1.5278+34	- C .	-9.	FARAPOLOID	CUTSID	VERY NOSE CONE
125	9 CD Y	1.5276+34	_	-0.	FARABCLCID	CUTSIC	VERY NOSE CONE
320	6 CD A	4.673F+03		-9.	CYLINDER	CUISID	NOSE CYLINDEP
321	PCDY	4.6730+03		-9.	CATINBEA	outstn	NOSE CYLINDER
322	BCDY	4.573E+03		-0.	CYLINDER	CUISIO	MOSE CYLINDER
32 3	ያ ርካ ሃ	4.F73E+03	-	-3.	CYLINDER	CUISTO	HOSE CYLINDER
324	8 C	4.6735+03	-	-0.	CYLINDER	CUISID	NOSE CYLINDER
325	BLOA	4.673F+03		•O •	CAFINGES	CUISTO	NOSE CYLINDER
326	B CD Y	4.6738+07	-9.	-3.	ቦሃ ኒ ፣ ⋈ብ ፑ ₽	CUISIC	NOSE CYLINDEP

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

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NODE	ecs	AFFA	ALPH	EMISS	SURF. TYPE	ACTIVE	COPPENTS
327	всоч	4.673E+03	-0.	-0.	CYLINDER	OUTSID	NOSE CYLINDER
128	BCDY	4.6736+13		-0.	CYLINDER	CUTSIO	NOSE CYLINDER
.29	BCDY	4.673E+03		-9.	CYLINDER	CUISID	NOSE CYLINDER
330	ecor	4.673F+03	-:-	-9.	CYLINDER	CUTSIO	NOSE BYLINDER
331	B CD Y	4.673E+03	-(.	-3.	CATINDED	OUTSTD	NOSE CYLINDER
332	BCNY	4.673F+03	-0.	-8.	CYLTNOER	CUTSIO	. NOSE CYLINDER
333	8004	4.673E+03		-1.	CYLINDER	CUISIC	NCSE CYLINDEP
334	BCGY	· 4.673E+23	-0.	-0.	CATINGES	OUTSID	NOSE CYLINDER
335	BODY	4.6736+03	- C .	-0.	CYLINDER	CUTSIO	NOSE CYLINDER HCOO PARTTAL BACK
340	A CO Y	3.4386+03			FAFARCLCID	012103	HCCC PARTIAL BACK
341	BCDY	4.0228+03	- (,	-3.	FAFARCLCIO	CUISIC	HOOD PARTIAL BACK
342	N CO Y	4.1976+83		-0.	PAPABOLOID	CUISIO	HOOD FARTIAL BACK
343	eenv	4.3666+83		-0.	FAFAROLOID	CUTSIC	HOOD PARTIAL BACK
344	BCDY	3.8386+93		-2.	PARABOLOTO	CUTSID	HOOD PARTIAL BACK
345	ecor	4.022E+03		-9.	FARARCLCIA	CUTSIO	HOOD PARTIAL BACK
34€	6 CD A	4.1976 + 23		-0.	FARARCLCID	CUTSTO	HOOD PARTIAL BACK
347	BUDA	4.3666+13		-0.	FAFARCLCID FAFABCLCID	CUTSTO	HOOC PARTIAL PACK
348	BCDA	, 3.838E+03		-0.	FARABCLCIO	CUTSIO	HOCO PAFTIAL PACK
349	neny	4.022F+13		-0.	FARABOLOTO	cutsio	HCCO PARTIAL BACK
350	BCDA	4.1°7F+73		-ŋ.	FARABOLOID	CUTSTO	HCCE FARTTAL BACK
351	BCOY	4.3666+03		-9.	PARABOLOID	CUTSIO	HOOD PARTIAL PACK
352	BCOY	3.838F+93		-0. -9.	FAFABCLCID	CUTSIC	HOCE PARTIAL BACK
353	BCDY	4.0225+03		-3.	FAFARCLITO	OUTSTO	HOCE PARTTAL BACK
354	8001	4.197F+03	•	-0.	FAFABELCIO	CUTSTO	HOOD PARTIAL BACK
355	8 00 A	4.366E+03		-0.	PARABELETO	CUISIO	MINDON
360	ないいよ	1.8258+93		-n,	FARARCECIO	CUTSIO	MINOGN
361	B CO Y P C D Y	2.0315.03		-9.	FAFARCLCID	rutsIn	WINDOW
362 363	BCDY -	2.21PF+03	_	-9.	FARABCLCIO	CUTSID	MINDOM
364	BCDY	1.5935+27		-7.	PARABOLOTO	CUTSID	MINDON
365	BCDY	1.825F+03		-0.	FAFABCLCIO	CUTSIO	WINDOW
366	RCDY	2.031F+03		-n .	FAFABCLCTO	CUISID	WINDOW
367	ecov	2.213F+C3		-0.	PAFARCLCID	CUTSID	HIKDON
368	BCDY	1.5035+03		-9.	FAFARCLETO	CUISTO	WINDOW
369	B 00 Y	1.8256+07		-0.	FAGABCLCID	CUISID	HINDON
370	BCDY	2.031F+03		-0.	FARABCLCID	CUTSIO	WINDCW
371	BCDY	2.218E+03	-:•	-3.	PARABOLOIN	CUISTO	WINDCH
372	PCDY	1.5975+33		-0.	PARABOLOID	rutsio	WINDOW
373	BCDY	1.8256+03		-0.	FARABOLCIO	CUISIO	WINDOW
374	9001	2.031F+03	- C •	-0.	PAFABCLOID	011010	WINGCW
375	BCDA	2.2186+03		-9.	FAFABCLCID	012100	MINDOM ACCY COTTON (FRT) 6 1
461	8 CD Y	4.6106+04	.980	.000	RECTANGLE	POTTON	BOCY BOTTON (REAR) 402
402	BODY	1.4385+05	.900	.908	RECTARCUE	901108 611210	CHSPOCC1
182	8 CD Y	3.9316+04	- "	-0.	CALINDER	CUTSIO	CMSP0002
172	BUILLA	3.6135.04		-3.	CYLINDER	INSIDE	+Y SIDE DCOF
781	echy	2.470E+14	۲.	0.	CYLINDER	1 11 3 1 14 5	

MCDEL = TAFET STFF = 1 PROCESSING CFERATIONS DATA

NODE	PCS	AREA	ALPH	EFTSS	SURF. TYPE	ACTIVE	CCMMEN TS
782	8001	2.470E+04	G.	0.	CYLINDER	cutsic	+Y SICE BOOR
783	BCDY	2.470E+04	G.	0.	CYLINDER	INSIDE	Y SIDE DCCR
784	ECDA	2.47CF+84	C.	9.	CYLINCER	CUTSIO	+Y SIDE OCCR'
785	BCOY	2.470E+24	Ĉ.	0.	CYLINDER	INSTOE	+Y SICE DCOR
786	BODY	2.470E+04	Ĉ.	9.	CYLTNOER	CUTSIC	****** SICE DCCR*****
787	8 CO Y	2.470F+04	t.	5.	CYLTNDER	INSTICE	+Y SIDE DOCR
798	BODY	2.470F+94	0.	o.	CYLTHOER	OUTSID	+Y SIDE DCCR
791	BCDY	2.413E+94	ũ.	9.	CYLINDER	INSIDE	Y SIDE BOCP
792	PCDY	2.413F+54	0.	ŋ .	CYLINGER	CUTSTO	Y SIDE DOOR
793	BCDY	2.413E+74	۲.	0 -	CYLINCER	INSIPE	Y SIBE CCCP
794	€00.¥	2.413E+34	9.	0 -	CAFINDED	CUTSIO	Y SIBE DOOR
795	BCDY	2.413F+94	C .	9.	CYLINDER	INSICE	Y SIDE BOCK
736	BCBY	2.4135+64	٥.	0.	CATINGER	CUISIC	Y SIDE DOCR
797	P CO Y	2.413F+05	ū.	9 •	CYLINDER	INSIDE	Y SIDE DOCR
798	BCDA	2.413F+94	ť.	9.	CAFLWOEE	CUTSIO	Y SIDE DOCO
301	BCOY	2.9548134	Ç.	0.	TRAPEZCIO	TCF	+Y SIDE FRONT TRAPCZOTO
335	BCDY	4.0976+04	.900	.900	RECTANGLE	አ ሁል	BORY SIDE (MIDDLE-FORT) 305
306	BCDY	15.155F+04	.900	.901	RECTANCLE	TOF	BODY SIDE (CACK-FORT) 306
311	8 C D Y	8.9945+94	€.	0.	TRAPEZÕTO	ROTTCM	-Y SIDE FRONT TRAFC7010
315	P CO Y	1.6785+34	.900	.987	RECTANGLE	105	COCI CENT 11 TOTAL
316	RCOY	3.7958+94	. 000	. 900	PECTANGLE	TOP	G. G
202	BCDY	3.6856+04	.900	•៨៧។	CAFINGED	CUTSIO	BCCY TCP (STBD-REAF) 202 BCCY TCP (ECRT-PEAP) 212
212	BCDY	3.6956+94	.900	.900	CAFINGES	CUISID	C
380	8 00 Y	2.805E+00	. 900	.9 03	TRAPEZCID	TOF	VERTICAL FIN (PORT) 20 VERTICAL FIN (PORT-AFT) 20
385	១០១៦	· 2.654E+34	• 660	.507	TEAPEZOTO	TOF	
390	BCDY	2.8056+04	. 300	•000	TRAPEZCID	BOTTOM	VERTICAL FIN (STEE) 20 VERTICAL FIN (STEE-AFT) 20
395	PCDY	2.7546+64	960	.983	TRAPEZCID	4011CH	HOST FORWARD EVAFORATOR
7.15	PCOY	2.827F+01	C -	<u>n</u> •	01 cc	TOP	SUPER ENGINE ICHS LCCAT
700	BODY	1.5906493	C •	0.	DISC	BOTTOM Top	SUPER ENGINS COMS LOCAT
761	BCHY	1.5cnE+03	0.	0.	C150	BOTTON	SUPFF ENGINE LOCAT
702	B CD Y	1.593E+33	G •	9.	DISC	10P	SUPER ENGINE COME LOCAT
703	ውርካ ¥	1.5005+03	3.	2.	uled	POTTOM	BACK PCS LCCKING +/- Y. I
24	PCDY	2.832E+01	C.	0.	GIZC	TOP	BACK PCSLCCKING +/- Y.I
25	ECDA	2.P32F+f1	Ç.	9.	CISC CISC	BOTTOM	FRONT ROSLOCKING +/-Y AT
<u>1 A</u>	BCOY	2.A26E+31	<u>.</u>	j.	CISC	TOP	FRENT RES. LECKING +/-Y AT
15	BCDY	2.826F+31	C .	0.	DISC	POTTOM	OACK RCS LOCKING +/- Z7/
26	BOOM	2.827F+31	E.	0. 9.	NISC	TOP	PACK RGS LOCKING +/- Z7/
27	ECDY	2.9776+61.		9.	DISC	POTTON	MIDDLE EVAP. LCCKING +/- Y.
1.6	800 Y	2.927E+01	D.	0.	CISC	TOP	MIDDLE EVAP. LCCKING +/- Y.
17	BCDY	2.827E+01	Ç.	9 4	RECTANGLE	COTTON	THIN STRIP EFTHEEN BOORS AN
160	BCDY	1.750F+02	0.	0.	RECTANGLE	TOF	THIN STRIP BETWEEN COORS AN
161	ECDA	1.7505+92	(. (.	0	RECTANGLE	POTTON	THIN STRIP BETAFEN DOORS AN
162	የ የ	1.7595+12	C.	0.	RECTANGLE	TCP	THIN STRIP BETWEEK COORS AN
163	BODY	1.7505+02	S.	1.	RECTANGLE	MOTTOM	THIN STRIP BETWEEN COOPS AN
164	BCOY	1.7505+02 1.7505+02	£.	3	PECTANGLE	TOP	THIN STRIP OFTHEEN DOORS AN
165	6 GD A	147701166	₽ •	9.4	· CC · MINGE	•	•

NODE	ecs	VAEV	ALPH	E#ISS	SURF. TYPE	ACTIVE	GCMMENTS
166	BCDY	1.750£+02	۲.	3.	RECTANGLE	POTTOP	THIN STRIP BETWEEN GOORS AN
167	всоч	1.750E+02	0.	9.	FECTANGLE	TOP	THIN STRIP BETTEEN GOOPS AN
399	8 CD ¥	4.1526+83	.988	.900	RECTANGLE	TOF	VERT. FIN LOG. ECGE 2
1000	SFLIB	1.9120094	0	0.	CYLINGER	CUTSIO	TUNNEL 1. X=582 TC 672.4. SPA
1810	SPLAS	1.168E+04	C -	Ο.	CYLINDER	CUTSTE	TUNNEL 2, X=672.4 TO 790.4, S
1015	SELAR	1.1686+04	Ç 🕳	0.	CYLINOFR	OUTSID	TLNNEL 2, X=672.4 TO 790.4, S
1020	SELAD	1.918E+04	C.	9.	CCNE	CUTSID	FMD GCNE, X=790.4 TC 816.1. SP
1200	SPLAB	2.8°5F+01	C.	0.	0150	BOTTOM	EGS CONDENSATE VENT 802.1, SP
1201	SFLAB	2.8056+81	C.	0.	CIEC	106	ECS CONDENSATE VENT 802.1. SP
1.339	SPLAG .	5.316F+04	0.	0 -	CYLINDER	CUISID	CORE SEGMENT X=816.1 T
1340	SFLAG	5.3468+34	1.	э.	CYLINDER	CUTSIO	EXPERIMENT SECHENT X=922
1050	SELMB	2.102F+04	·C •	0.	CCME	CUTSIO	AFT CONE TAPER, X=1027.9 TO
1969	SFLA9	4.745E+C3	·C •	v .	CYLINDER	CUISIO	AFT ATRLCCK, X=1059.3 TO 108
1065	SELAR	2.0596+03	Ç.	0.	DISG	TOP .	AFT AIRLCCK CFSC X= 1089.8.
1070	SPEAR	2.822E+04	0.	0.	CALINDER	CUTSIO	PALLET BOTTOM CYLINDER X= 110
1090	SFL AB	1.596F+83	€.	0.	RECTANGLE	TOP	+y PALLET CUTSICE STRIP
1081	S ዋኒ ሰዓ	1.596E+03	C •	0.	RECTANGLE	10F	+Y PALLET OUTSICE STRIP
1082	SFLAB	6.8406+02	6.	0 -	RECTANGLE	TOF	-Y PALLET TOP STRIP X=1101.2 T
1083	SPLAR	E.840F#02	€.	0 -	FECTANCLE	TOP	+Y PALLET TOP STRIP , >= 1101.
1084	SFLAR	5.1666+03	0.	0 -	FECTANGLE	TOF	-Y INSIDE TOP FARREL, X=1101.2
1085	SELAB	5.1FFE+03	£ .	0	FECTANGLE	TOP	+Y THRIGE TOP FANNEL.X=1131.2
1986	SFLAS	4.0936+03	C.	0 -	FECTANGLE	TOP	+Y INSIDE ROTTOM PANNEL, X=11
1087	SPLAR	4.093F+83	C .	0.	FECTANGLE	TOP	++ INSIDE BOTTOM FANNEL, X 110
1988	SELAB	7.86FE*83	ſ.	ŋ.	FECTANELE	TOP	PALLET ROTTOM, X= 1101.2 TO 12
1100	SELAR	1.9635+13	C.	0.	DISC	MOTTON	TUNNEL EVA HATCH X=627. SPACE
1101	SPLAG	1.9F3F+33	0.	.ฃ•	CISC	TOP	TURNEL EVA HATCH X=827. SPACE
1110	SPLAR	1.219E+73	e •	0.	CISC	POTTOM	CCPE SEGMENT WINCOW, X=869. S
1111	SELAR	1.219F+07	Ū.	g .	DIEC	TOP	CCPE SEGMENT WINCOW, X=869. S
1120	SPLAB	2.0595+93	Ç.	ŋ.	CISC	BOTTOM	EXPERIMENT SEGIMENT WINDOW.
1121	SELAB	2.0596+73	0.	o.	0150	TOF	EXPERIMENT SEGIMENT WINDOW.
1130	SFLAR	2.4275+32	C .	9.	DISC	BOTTON	AFT AIPLOCK WINDOW X=1043.6,
1131	SFLAR	2.427E+02	0.	0.	EISC	TOP	AFT AIRLOCK WINDOW X=1043.6.

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SPACELAB-1 INPUT DATA MATRIX

The following pages contain the input data computer printouts for the Spacelab-1/Orbiter configuration.

17

INPUT CARD CCL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NC. LABEL

-	12343010 1 2343010 2 2343010 2 2343010 4 2343010 5 2343010 1 2343010	a Enti Mo. OFD Edit MC	. EMDEE
	HEADER SURFACE DATA	41	AA
	I ICSN=50	42	AA
	TX=0., TY=C., T7=0.	43	AA
	ROTY=0., PCTY=0., ROTY=0.	44	ДД
	I ICSN = 1	45	AΛ
	TX=800TY=0TZ=0.	. 46	βA
	FOTZ=-180.,ROTY=C.,PCTX=0.	47	ДΑ
:	I ICSM = 2	48	AA
	TY = ~6.000000000000000000000000000000000000	49	AA
	TY = 0.	50	ΔA
	17 = 0.	51	AA
	FOTZ = -180.(000	52	0.0
	FUTY = -M.	53	AA
	FOTX = 0.	54	0.0
1		55	ΔA
	1X = A.(0000QQ00QF+02	56	AA
	TY = (.	57	AA
	₹7 = 0 .	5#	ΔA
	FCTZ = -90.CC00	5°S	AA AA
	' FOTY = -0.	61	ብብ በስ
	FOIX = 90.0000		nμ
Ţ		61	
•	TY = 4.300000000F+02	62	0.0
		6.3	AA
	, , , , , , , , , , , , , , , , , , ,	5.4	aΛ 00
		65	PΑ
	FOYZ = 79.7030	66	ΔA
	FOTY = 41.(C00	67	ΔΔ
-	FOTX = P.	6.8	AA
I		69	ДА
	TX = 4.375000000CF+02	70	DΔ
	ty = -€.290000000€+01	71	BΔ
	17 = 2.4CC00C000CE+01	72	A C
	FCTZ = 100.3000	73	ΔA
	FOTY = -41.0000	74	ΔA
	entx = 0.	75	ΔA
I	ICSN= 6	76	ΔA
	Tx=-195.	77	ΔA
	TY=3.	78	ΛA
	TZ=14.	79	44
	POTY=0.,POTY=9(.,POTZ=0.	8 ១	ЛД
Ţ	ICS##7	61	ΛA
	TX=-116.,TY=0.,T2=14.	82	ΔA
	POTX=3.,PCTY=90.,R0T2=0.	B 7	6A
Ţ	ICSN=A	84	ДД
	TY=-116.,TY=0.,T7=14.	85	ΔA
	^OTY=9^OTY=99^OTZ=8.	85	14
Ī	1658=9	87	ΔA
-	TX=156TY=7T7=14.		ΔA
	POTX=0.,FCTY=-90., FCT7=0.	59	2.4
Ī	ICSN=10	90	aa
-	TX=125TY=0F7=14.	91	a a
	·	· -	

INPUT CARD COL. = 12345678 1 2345678 ? 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

	•		
	POTY=0PCTY=90ROTZ=C.	92	AA
Ť	ICSN = 11	93	ÀA
•	TX=+47C.,TY=-78.14,TZ=65.56	94	AQ
	PCTX=0FCTY=90.,RCY7=0.	95	ДД
I .	ICSN=12	96	ΔA
• •	TX=-470., TY=+78.14,TZ=65.56	97	AA
	RCTX=0., RCTY=90.C.POTZ=0.	9.8	ДД
I	ICSM#13	99	ΔΔ
1	TX =-700., TY=00., T2=50.	100	24
	ROIX=0.0.0.PCTY=-80ROTZ=0.	191	AA
	105N±14	132	≴A
I	TX=+717.,TY=0.0,T7=+50.	133	AA'
		184	ΔΔ
_	ROTX=3.0,RCTY=+80.,ROTZ=0.	135	ĀĀ
Ţ	1CSN=15	105	ΔA
	TX=-711.,TY=0.0,TZ=0.0	107	A٨
	FOTX=0.C. RCTY=-97.35, ROTZ=0.0	107	. A A
Ţ	1050=16		A.C.
	1x=-7051Y=8817=70.5	199	
	FOTX=9., RCTY=-74.183, ROTZ=12.241	110	4 Д 6 Д
ι	ICSN=17	111	-
	TY=+7(5.,TY=-88.,TZ=70.5	112	AA
	ROTX=0.,ROTY=-74.183,ROTZ=12.241	113	AA
Ţ	ICSN=2°	114	· 44 19
	TX=9.,TY=102.,TZ=0.	115	дя
	FOTY=+5POTY=0ROTZ=0.	116	A C
Ţ	TCSN=21	117	AA
•	TX=0.,TY=-102.,T7=0.	118	AA
	RCTX=5RCTY=0ROTZ=0.	119	AA
ECS	PCCY	123	AΑ
5	SURF = 145, TYPE=TRAP, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH	121	ДÔ
L.	P1=-698.,102.,0.	122	5 A
	P2==698.,102.,-125.	123	AA
	P3=-728.,102.,-125.	124	ΔA
	P4=-711.,192.,0.	125	£A.
		126	AA
	PPCP=0º. COV=♥ •Y PFAP STOF TAPER♥	127	AA
_		128	AA
5	SURF = 1 LE, TYPE=TRAP, ACTIVE=BOTTON, SHACE=BOTH, BSHADE=BCTH	129	ã à
	91=-698.,-102.,0.	130	AA
	P2=-698.,-102.,-125.	131	AA.
	P3=-728.,-102.,-125.	132	AA
	P4=-711.,-102.,0.	133	ΔA
	PR(P=0.,0.		
	COP# * - Y: REAR SIDE TAPER*	134	AA
S	<pre>CUREN=707, TYPE=OTSC.ACTIVE=BOTH.SHADE=BOTH.BSHADE=BOTA</pre>	135	AA
	F1=218.,134.,-47.	136	AA
	F2=21813459.	137	AA
	F3=215.,124.,-47.	138	AA
	F4=215.,1)4.,-47.	139	AA
	ρυφρ=σg.	140	βA
	COM=*JULY & TYAP3 IN, MAT. OF FRONT CLOSE UNDER HING*	141	ΔA
S	SURF=147,TYPF=PARAB,ACTIVE=OUT,SHACE=PCTH,8SHACE=PCTH	142	- ΔΔ

INPUT CARO CCL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NC. LABEL

	DIMENSIONS=4.4.0.0.1000360.	143	8A
	TCSN=13	144	AA
	FRCP=3	145	44
	CCP=* TCP FNGIN *	146	AA
S	SURF=148.TYPE=PARAB.ACTIVE= CUT.SHARE=BOTH.BSHADE=BOTH	147	δÃ
•	OIMENSICKS=4.4.8.C.1000360.	148	AA
	ICSM=14.TY=+50.	149	44
	PROF=00.	150	ĀĀ
	COM = * + Y ENGIN *	151	ÃÃ
S	SUFF=149,TYPE=PARAE,ACTIVE=OUT.SHACE=BCTH.BSHACE=BOTH	152	AA
_	DIMFNSICNS=4.4.0.0.1000360.	153	AA
	ICSN = 14, TV =+5C.	154	ÃÃ
	PROF=)	155	ΔΔ
	COM = T -Y ENGIN*	156	24
\$	SUFF=20,TYFF=DISC,ACTIVE=OUT,SHADE=BOTH,BSHADE=BOTH	157	AA
-	DIMENSIONS=0.0.0.45125335.	158	AA
	PRCP=00.	159	AA
	IC SN = 1!	167	ΔΔ
	CCM = *Y CWS SEALER*	161	44
S	SUFF=21, TYPE=DISC, ACTIVE=OUT, SHADE=BOTH, BSHADE=BOTH	162	
•	DIMENSIONS=9.0, C.0, 45., 25., 235.	163	44
	PRCP=C	164	AA
	IC5N=12	165	1 A
	CON= #Y OHS SEALER*	166	14 20 44 20
5	SUPF=222.TYFE=RECT.ACTIVE=BOTTCM.SHADE=BCTH.BSHADE=BOTH	167	AA
•	F1=-728102125.	168	ĀĀ
	P2=-728112125.	169	44
	P3=-711102C.0	179	DΔ
	PRCF=0.,0.	171	дд Д Д
	COMPT BACK RECT 7.35DEGT	172	20
5	SUPF=23.TYPF=CISC.ACTIVE=TOP.SHADE=BOTH.BSHADE=BCTH	173	AA AA
2	DIMENSIONS=0.0.C.0.10290270.	174	28
	PROF=00.	175	ΔΔ
	JCSN=15	176	AA
	CCM=* REAR END HALF DISK*	177-	. 20
S	SURF=407, TYPE=DISC.ACTIVE=TOP.SHADE=BOTH.BSHADE= BOTH	178	AA
J	P1=-592.3,113.,-77.	179	AA
	P2=-592.0.11380.	183	44
	P3=-595 · P • 113 · • -77 ·	181	AA
	P4=-595.0.113.,-77.	182	ΔA
	FROF=0.,0.	183	44
	COM=+ BACK SIDE EVAPORAT. UPDATED JULY 18. E IN DIA.+	184	20
S	SURF=15.TYPE=CISC.ACTIVE=TOP.SHACE=BOTH.BSHACE=BOTH	185	ΔA
•	P1=-719.,126.,-95.	186	AA
	P?=-719.,126.,-98.	187	AA .
	P3=-722-12695.	188	44
	P4=-72212665.	189	AA
	PROF=00.	190	ΔA
	CCM=T REAR END EVAFCRATOR*	191	μα Δα
s	SURF=10.TYPE=FCLY.ACTIVE=BOTTON.SHACE=BOTH.ESHACE=ECTH	192	ΔA
•	P1=2300+102.	193	AA
		- / 4	P P

INPUT CARD COL. =

REPRODUCIBILITY OF THE ORIGINAL PAGE IS POOR

12345678	1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 € 2345678 7 23456	78 8 EDIT NO. OLD ED	T NC. LABEL
	P2=-192.,-89.,-61.	194.	AA
	P3=-192.,0.,-6(.	195	ΔA
	ICSN=21	196	AA
	FRCF=00.	197	ΔΔ
	COMENALEFT FRONT WING A*	198	AA
S	SURF=11, TYPF=FCLY. ACTIVE=TOP. SHADE=BOTH, BSHADE=BOTH	199	6.6
_	P1=-192.,-89.,+60.	233	ДД
	P2=-483.,-89.,-85.	201	ΔΔ
	P3=-483.,-366.,-85.	212	AA
	ICSN=21	203	, ДД
	PROF=13.	234	ΔД
	COM=*FFF MIDDLE WING BACK.B *	205	AA
\$	SURF=141,TYPE=RECT.ACTIVE=TOP.BSHADE=BOTH.SHADE=BCTH	236	AΑ
	P1=-192.+9.+=60.	207	AA
	P2=-4830.,-85.	218	AΛ
	P3=-4R3.,-R9.,-85.	239 .	AA
	TCSN=21	210	AA
	PPCF=00.	211	ДД
	COMER BS INVER HING	212	AA
S	SURF=12,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	213	AA
	P1=~644.,-B999.	214	ΔA
	P2=+644.,-366.,-90.	215	ДД
	P3=-483.,-366.,-85.	216	AA 23
	IGSh=21	217	ΑΔ
	PPOP=9(.	218	ΔΔ.
	CCM=* +++++ LEFT BACK RECT+ HING C ++++ #	219	AΔ
S	SURF=142.TYPF=FECT.ACTIVE=TOP.SHADE=BOTH.BSFADE=BOTH	223	ДД
	P1=-644.,0.,-90.	221	AA
,	P2=-644.,+89.,+90.	222	ДД
	P3=-483.,-89.,-85.	223.	AA
	TCSN=21	224	AA
	.P90F=00.	225	ΔΔ ΔΔ
	COM=* INNER WING C#	226	44
S	SUPF=13.TYPE=FCLY.ACTIVE=TOP.SHARE=EOTH.BSHADE=BOTH	227 228	AA AA
	P1=-698.,0.,-102.	229	AA
	F2=-644.,-366.,-90.	230	AA
	P3=-644.,0.,-90.	231	AA
	PROF=0	232	44
	ICSN=21	233	ΔΔ.
	CCM=# LEFT WING TAIL EDGED . *	234	AA
\$	SURF=1, TYFE=PCLY, ACTIVE=TOP, SHACE=PCTH, BSHACE=BCTH	235	AA
•	P1=230.,0.,-70.	235	AA
	P2=-192.,89.,-60.	237	AA AA
	P3=-192.,0.,-60.	238	AA
	PROP= 0., N.	239	44 44
	ICSN=20	240	ρA
	COM=+FRONT WING TRIANGLE RT.A.582.1024*	241	AA
S	SURF=2, TYPE=PCLY, ACT BVE=BOTTOM, SHARE=BCTH, BSHADE=BCTH	242	AA AA
	PROP=30.	243	AA
	P1=-192., 89., - 60.	244	AA AA
	P2=-463.,89.,-85.	244	FA

INPUT CARD CCL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NC. LABEL

```
ΔΔ
                                                                                     245
         P3=-463.,366.,-85.
                                                                                                         6.6
                                                                                     246
         CCH=#....MTCCLE WING TRAP, RT E .. 1024.1292*
                                                                                                         AA
                                                                                     247
                                                                                     248
          SURF=143.TYPE=RECT.ACTIVE=BOTTCM.SHADE=BOTH.BSHADE=BOTH
                                                                                                         ΔA
                                                                                     249
         P1=-192..0..-69.
                                                                                                         ΔΔ
                                                                                   250
         P2=-483..0..-85.
                                                                                     251
         P3=-483..89...85.
                                                                                                         ΔΔ
                                                                                     252
         FROF=9..3.
                                                                                                         ΔΔ
                                                                                     253
         TCSN=23
                                                                                                         AΑ
                                                                                     254
         CCM=#P +Y RECTANGLE WING#
                                                                                                         ΔA
                                                                                     255
         SURF= 3, TYPE=RECT.ACT JVE=BCTTOM.SHADE=BOTH.BSHADE=BCTF
                                                                                                         ۵۵
                                                                                     256
         P1=-644..89..=90.
                                                                                                         ΔΔ
                                                                                     257
         P2=-644..366..-90.
                                                                                                         AΑ
                                                                                     258
         P3=-487...366....65.
                                                                                                         ΔΔ
                                                                                     259
         PROF=8..1.
                                                                                     263
                                                                                                         AA
         TCSN = 20
                                                                                                         40
                                                                                     261
         CCH=*... BACK WING RECT. RTC .1292.1453#
                                                                                                         ΔA
                                                                                     262
          SURF=144, TYPE=RECT.ACTIVE=BOTTCM-SHADE=BOTH.BSHADE=BOTH
                                                                                                          ۵Δ
                                                                                     263
         P1=-644..0..-90.
                                                                                                         84
                                                                                     264
         P2=-644..89..-90.
                                                                                                          ΔA
                                                                                     265
         P3=-483.,89.,-85.
                                                                                                          AΛ
                                                                                     266
         PROF=8..3.
                                                                                     267
         TCSN=23
                                                                                                          AA N
                                                                                     258
         CCM= * INNER WING C RECT*
                                                                                                          AA
                                                                                     269
         SURF=4. TYPE=PCLY. ACTIVE=BOTTOM. SHADE=BOTH. BSHADE=BCTH
5
                                                                                                          ДΔ
                                                                                     270
         P1=-698.,0.,-102.
                                                                                                          ΔA
                                                                                     271
         P2=-644 .. 366 .. - 90 ..
                                                                                                          ΔA
                                                                                     272
         P3=+644..0..-90.
                                                                                                          ΔA
                                                                                     273
         PP0P=3....
                                                                                                          44
                                                                                     274
         ICSK=20
                                                                                     275
                                                                                                          ΔΔ
        COM=*...WING TAIL FLAP RT 1453,1507*
                                                                                                          ΔA
                                                                                     276
        SHPFN= 150, SHAOF=BOTH, BSHADF=BCTH, ALPHA=-0. , EMISS=-0.
                                                                                     277
                                                                                                          ΔΔ
        TRANS==3. .TRANI==C. .COM=FERY AREA CYLINDER
                                                                                                          AA
                                                                                     278
        TYPE=CYLINDEP ,ACTIVE=INSIDE ,ALPH= 1.02000E+02
                                                                                     275
                                                                                                          ΔA
                       .BMAX= 7.00000E+02.EMIN# 0.
        BMIN≃ 0.
                                                                                     280
                                                                                                          ΔA
                                          4.ICSN= -0
        GMAX= 1.83838E+82.NNX=
                                2, NNY=
                                                                                     281
                                                                                                          AA
                                          . ..
        FCSITION=-4.700(GE+02, P.
                                                                                                          AA
                                                                                     282
        FOTZ = -0. , POTY = 90.6000, ROTX
                                                                                     283
                                                                                                          ΔA
        SUPPA: 140, SHADE=801+, BSHADE=8CT+, ALPHA=-0. . . EMISS=-0.
                                                                                     284
                                                                                                          ΔΔ
        TRANS=+0. TRANT=+C. .COM=* END BAY AREA DISK
                                                                                     235
                                                                                                          AA
                       .ACTIVE=TOP
                                      .ALPH= 3.
        TYPE=CISC.
                                                                                                          ДД
                                                                                     286
                       .9MAX= 1.02000E4G2.6MIN= 0.
        CMAX= 3.60000E+02,NNX= 1,NNY= 1,ICSN= +8
                                                                                     287
                                                                                                          ΔΔ
                                                                                                          ΔΔ
                                                                                     288
        FOSITION=-4.70000F+32, G.
                                          . (.
                                                                                     289
                                                                                                          Δ۵
                                  = 90.0000, ROTX =
        9017 = +D. . ROTY
                                                                                                          АΔ
                                                                                     290
        SURFA= 135, SHADE=BOTH.BSHADE=ROTH.ALPHA=-0. . FMISS=-0.
S
                                                                                     291
                                                                                                          ΔΔ
        TOANS==3. TEANT==0. COME* FPONT BAY AREA DISK
                                                                                                          AΑ
                                                                                     292
                       .ACTIVE=TOP .ALPH= 0.
        TYPE=DISC
                                                                                                          ΔA
                       .0 = AIMAx = 1.02000E+02.EMIN= 0.
                                                                                     293
        PMIN= 0.
                                                                                     294
                                                                                                          ΛA
        CMAX= 3. F0000E +02. NNY= 1. NNY= 1. TCSN= -9
                                                                                     295
                                                                                                         ДД
                                          , (.
        FOSITION: 2.30000F+92.0.
```

INPUT CARD GCL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NC. LABEL AA POTZ **=** -0. , ROTY = -98.0000. ROTX 296 297 ΔΔ S SUPFR= 122.SHACE=ROTH.BSHADE=BCTH.ALPHA=-0. 298 AA TPANS=-G. .TRANI=-G. .COM=# VERY NOSÉ CONE 299 TYPE=PARAPOLOTO.ACTIVE=OUTSIDE,ALPH= 6.13000E+09 333 AΑ PMIN= 0. .BMAX= 2.00000fE+^2.6MIN= 0. 331 44 GMAX= 3.688306+82.NNX= 4.NNY= . 1.ICSN= AA 312 FOSTTION= 2.000055+92. G. .-3.000C3E+61 313 ΔΔ = -180.0000, ROTY . = -90.0000, ROTX AA 314 SURFIE 320,SHACE=BOTH,BSHADE=BOTH,ALPH4=+0. .EMISS=+0. AA TRANS==J. .TGANI==O. .CCM=F NOSE CYLINGER 315 316 TYPE=CYLINDER .ACTIVE=OUTSIDE.ALPH= 7.00003E+01 .8MAX= 1.73000E+02.6MIN= 0. 317 ΛA 308 AA 4.NNY= 4.ICSN= GMAX# 3.FCC30F+C2.NNX# AA FOSITION= 4.00070F+92. 0. ,-3.00030E+C1 319 310 AA ROTZ = -180.0000, POTY = +90.0000, ROTX ΔΔ SUREN= 340.SHACE=POTH.BSHADE=BOTH.ALPHA=-i. 311 5 AA TRANS=-0. .TEANI=-0. .COM== . HOCO PARTIAL BACK 312 TYPE=PARABOLDIC.ACTIVE=OUTSIDE.ALPH= 7.0350JE+00 313 ΔA 2.5 emin= 2.63990f+32.8Max= 3.703086+62.6Min= 0. 314 CMAX= 3.60000F+02.KNX= 4.KNY= 4.ICSN= 315 44 ΔΔ 316 FOSITION=, 2.00CUPF+02. 0. , [. 317 FNT7 = -188.((00. POTY = -90.0000, ROTX 318 SURFN= 361,SHACE=80TH,BSHACE=BOTH,ALFHA==0. سهم THANS=+J. . TRANI=-O. .COM=# WINDOW AA TYPE=PARAPOLOIG, ACTIVE=OUTSIRE, ALPH= 2.38660E+91 320 321 ΔA EMIN= 1.60000E+01,9MAX= 7.68000E+01.6MIN= 0. βA GMAX= 3.60000E+32.NNX= 4. NNY= 4.ICSN= 322 AA POSTTION= 3.83200F+68, 0. . [. 323 324 44 = -90.0000. RCTX = -180.0000, ROTY SUPER= 431.SHADE=90TH.BSHADE=8CTH.ALPHA= .900.EMISS= 325 ДΔ 326 AΔ TPANS=-9. .TFANS=+0. .COM=*ecdy edition (FRT) TYPE=RECTARGLE .ACTIVE=8CTTOM .ALPH= G. AΑ 327 328 AL PMIN=+1.02010F+02.8MAX= 1.02000E+92.6MIN= 0. 329 ΔΔ 1.ICSN= CMAX= 2.26030F+02;NNX= .-1.920COE+C2 333 fosition= 5.70600F+02. 0. 5.3874. ROTX 331 ДΔ = -n, ROTY ROTZ SURFA= 402.SHADE=BDTH.BSHADE=BCTH.ALPHA= .900.EMISS= 332 ΛΑ 333 AΑ TRANS=-9. .TRANT=-0. .COM=#8CDY FOTTOM (REAR) 402 334 AΑ TYPE=PECTANGLE .ACTIVE=RCTIOM .ALPH=+1.25000E+02 BMTN=-1.02090F+02.8M4X= 1.020005+62.6MIN= 2.25006E+02 335 ΔΔ GMAY= 9.33030E+02.NNX= 1.NNY= 1,ICSN= 336 ΔA ι. AA FOSITION= 5.70000F+02. 0. 337 338 AΑ = -0. POTY = -0. ROTX 339 AA SUPFN= 192.SHARE=POTH.BSHADE=BOTH.ALPHA=+0. TRANS=-8. .TRANT=+8. .COME* CMSPCRC1 340 AA TYPE=CYLINGER .ACTIVE=OLTSIDE.ALPH= 4.50000E+01 341 4 / .BMAX= 2.35008E+02.6MIN= 3.50000E+01 342 AA 44 GMAX= 2.486D0F+62.NHX= 1,RMY= 1.ICSN= -0 343 AA FOSITION==4.788000+32,+7.81408E+01. E.55609F+01. 344 345 54 ⇒ +0. ROIY = +90.0030, POIX COIZ346

EMISS=-0.

AΔ

SURFE= 172,SHACE=BCTH,BSHADE=PCTH,&LPHA=-0.

INPUT CARD COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

	TRANS=-O. ,TRANI=-C. ,COH=* CMSPCDC2	347	AA
	TYPE=CYLINDER ,ACTIVE=OLTSIDE.ALPH= 4.50009E+01	348	AA
	GMAX= 1.46000E+C2,NNX= 1,NNY= 1,ICSN= -0	349	AA
	PMIN= 0. , PMAX= 2.35000F+C2.6MIN=-6.€0000E+01	350	AA
	POSITTON=-4.70000E+02, 7.8140CE+C1, E.55600E+01	351	AA
	ROTZ = -0. , POTY = -90.0000, ROTX = 0.	, 355	AA
S	SUPFN= 781,TYPE=CYL,ACTIVE=BOTH,SHACE=BOTH,BSHACE=BOTH	353	АД
	F1=230.,201.34,37.98	354	ДД
	F2=230.,103.,19.	355	ДД
	F3=230201.34E4.02	356	ДД
	F4=-479.,201.34,+64.02	357	8.0
	FROR=0	358	AA
	VX X = 5 * V X = 5	359	AA
	COM=**Y SIDE DOCR*	360	AA
\$	SHRFR= 791,TYFE=CYL,AGTIVE=BOTH.SHADE=BOTH.BSHADE=BOTH	361	AA
	F1 = 230 · , - 201 · 34 · 37 · 98	352	AA
	P2=230201.3464.02	363	AA
	P3=230+,-103-,19.	364	۸A
	F4=-470.,-193.,19.	365	AA
	FRCP=0.0.0.	365	. ΑΛ
	NNX=2+NNY=2	367	AA
	CCM=*X SICE COOP	368	A A
S	SUPEN= 301, TYPE=TRAP, BSHADE=BOTH, SHADE=BOTH, ACTIVE=TCP	369	AA 2
	F1=230.,1)2.,-102.	370 371	94 44 T-
	*C-44412244-1534	372	2 A
	£3=4.,102.,19.	373	üΔ
	F4=23C10219.	374	AA
	COME +Y SIDE FRONT TPAPOZOIO+	375	44
_	FPOP=00. SUPFA= 305.SHACE=80TH.BSHADE=80TH.ALPHA= .900.EMISS= .900	376	5.0
S	TRANS=-0. TRANT=-0. +COM=#BCDY SIDE (MICDLE-PORT) 305 *	377	AA
	TYPE=RECIANGLE ACTIVE=TOP ALPH= 1.02000E402	378	۵۵
	OMIN=-1.2FC00F+C2,9MAN= 19	379	` <u>AA</u>
	GMAX= 5.72000 +02, NNX= 1, NNY= 1.TCSN= 1	385	ΔΔ
	FOSITION= 5.70000E+02.0	381 -	ΔΔ
	ROTZ = +0. , ROTY = +0. , ROTX = 90.0000	382	AA
S	SURFN= 386,SHADE=BOTH,BSHADE=BOTH,ALPHA= .900,EMISS= .900	383	дд
J	TRANS=+0TRANT=-0COM=*BCDY SIDE (BACK-POPT) 306 *	384	AA
	TYPE=RECTANGLE .ACTIVE=TOP .ALPH= 1.02000E+02	385	ΔA
	EMIN=-1.25030F+02, BMAX= 19. , GMIN= 5.72000E+02	386	· AA
	CMAX= 9.30030E+02, NNX= 1, NNY= 1.1CSN= 1	387	AA
	FOSITION= 5.70006+02, 0 C.	388	AA
	ROT7 = -0 POTY = -0 ROTX = 90.0000	389	AA
5	SURFN= 311,TYPE=TRAP.BSHADE=RCT+.SHADE=BOTH.ACTIVE=BCTTCH	390	AA
-	P1=230102102.	391	AA
	F2=4.,102.,-125.	392	AA
	F3=4.,102.,19.	393	Aά
	F4=23C.,102.,19.	394	AA
	COM=* -Y SIDE FRONT TRAPCZCIO*	395	AA
	₽₽ 0₽±00.	396	AA
S	SURFN= 315, SHACE=BOTH,BSHACE=BOTH,ALPHA# .900.EMISS# .900	397	ΔA

		TRANS=-0TRANT=-0COM=+BCDY STDE (MIDCLE+STED) 315 *	395	AA
		TYPE=RECTANGLE , ACTIVE=TOP , ALPH= 1.02000E+02	399 .	. ДД
		EMIN= 19	400	AA
		GMAX= 5.72000F+02,NNX= 1.NNY= 1.ICSN= 1	401	AA
		POSITION= 5.70000E+C2, 0. , C.	402	AA
		ROTZ = -0ROTY = -0ROTX = -90.0000	403	AA
	· s	SUPFN= 316.SHARE=BOTH.BSHARE=BCTH.ALPHA= .900.EMISS= .900	404	
		TRANS=-3TRANT=-0COM=TRCDY SIDE (BACK+STRD) 316 *	435	44
		TYPE=RECTANGLE .ACTIVE=TCP .ALPH= 1.02000E+02	406	AA AA
		PMIN= 19 PMAX= 1.25000E+62.EMIN= 5.72000E+02	497 408	AA
© 25 0	•	EMAX= 9.3000PE+02.NNX= 1.NNY= 1.ICSN= 1		. 4 A
		FOSITION= 5.70GOCE+02, 0	409 418	ĀĀ
		ROT7 = -0, $ROTY = -0$, $RCTX = -90.0000$	411	ÃÃ
	S	SURFN= 232, SHARE=BOTH, BSHADE=BCTH, ALPHA= .900, EMISS= .900	412	۵۵
RIPRODUC		TPANS=-9. TEANT=-0. TOM=*BCDY TOP (STOC-REAR) 202	413	ΔA
		TYPE=CYLINDEP ,ACTIVE=DUTSIDE,ALPH= 1.32CO0E+02	414	ÄÄ
REPRODUCIBILITY ORIGINAL PAGE II		EMIN= 7.0000E+02.8MAX= 9.30000E+02.6MIN= 2.70000E+02	415	AA
- E E		CMAX= 3.60000F+02, NNX= 1.NNY= 1.ICSN= 1	41€	AΔ
PAGE IS		FOSITION= 5.78030E+02. 3	417	ДΔ
黄目		ROTZ = -0. , ROTY = 90.(300, ROTX = 0.	418	AA
<u>,</u> ⊢₹	S	SUPFA = 212, SHACE=BOTH, BSHADE=BCTH, ALPHA = .900.EMISS= .900 TRANS==3TRANT==0COM=#BCDY 10P (PORT-REAP) 212	419	ΔA
<i>0</i> ² 🔾		TRANS=-3TRANT=-0COM=*BCDY TOP (PORT-REAP) 212 TYPE=CYLINGER .ACTIVE=OUTSIDE.ALPH= 1.0200JE+02	420	AA N
		EMIN= 7.0000F+02,8MAX= 9.30900F+02,6MIN= 1.80000E+02	421	AA Ü
POOR.		CMAX= 2.73890E+02.NNX= 1.NNY= 1.ICSN= 1	422	ΔΔ
		FOSITION= 5.70000E+02. 0	423	AA
		cot7 = -0. , POTY = 90.0000, ROTX = 0.	424	ДЛ
	S	SURFA= 387 .SHADE=80TH.ASHADE=8CTH.ALPHA= .960.EMISS= .900	425	. AA
	3	TPANS==0. TRANT==0COM=*VERTICAL FIN (FORT) 20 *	42€	AA
		TYPE=TRAFEZOTE .ACTIVE=TCP .ALPH= 9.	427	AA
,		EMIN= 1.49400E+02.8MAX= 3.93400E+02.6MIN= 3.00080E+01	428	A A
		GMAX= 4.500006+01,NNX= 1,NNY= 1,ICSN= 1	429	ρΑ ΔΑ
		FOSITION= 1.6584CF+C3, 0 4.9540CE+C2	43] 431	AA
		ROTZ = -0. , ROTY = -180.CODD, ROTY = 90.0000	432	AA
	. S	SURFN= 345, SHACE = AOTE, BSHADE = BOTE, ALFHA= .900, EMISS= .900	433	ĀĀ
		TRANS=-0. ,TRANT=-0. ,CON=TVERTICAL FIN (FORT-AFT) 20 #	434	ΔΔ
		TYPE=TRAFEZOID , ACTIVE=TCP , ALPH= 0.	435	ΔΔ
		<pre>BMIN= 1.48400E+02.8MAX= 3.93400E+02.6MIN= 1.50000E+01 6MAX= 3.0300F+01.NNY= 1.NNY= 1.TCSN= 1</pre>	436	AA
		COURT STATE OF THE	437	ΔΔ
			438	AA
	_	ROTZ = -0. , ROTY = -18C.CGDT, ROTY = 90.0000 SURFN= 350.SHADE=BOTH.OSHADE=BOTH.ALFHA= .9CC.EMISS= .900	439	ΔΔ
	S		440	AA
		TYPE=TRAFEZOID .ACTIVE=BCTTOM .ALPH= 0.	441	AA
		BMIN= 1.48400F+C2, BMAX= 3.9340CE+C2.EMIN= 3.0C00CE+01	442	AA
		GMAX= 4.50000F+01,NNX= 1,NNY= 1,ICSN= 1	443	AA
		FOSITION= 1.6584 CE+03, 1.000 CCE-C1, 4.954 COE+C2	444	- AA
	•	50T7 = -0 ROTY = -180.0300, RCTX = 90.0000	445	AA
	s	SURFN= 395,SHARE=ROTH,BSHARE=BOTH,ALFHA= .900.EMISS= .900	446	AA
	3	TRANS=+0TRANT=-0COM=*VERTICAL FIN (STBC-AFT) 20	447	AA
		TYPE-TOACEZOTO ACTIVE=9CTION ALPH= 0.	448	PΑ

TYPE=TRAFFZOID .ACTIVE=BCTTCM .ALPH= 0.

INPUT CARD COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

			• .•
	PMIN= 1.48400F •0 Z.BMAX= 3.93400E •02.GMIN= 1.5000 GF •01	449	AA
	EMAX= 3.000000+01,NNX= 1,NNY= 1,ICSN= 1	450 '	ΔA
	fosition= 1.65840E+03. 1.20000E+01. 4.95400E+02	451	ДД
	ROTZ = -0. , ROTY = -180.0000, ROTA = 90.0000	452	AA
S	SURF=705.TYPE=DISC.ACTIVE=TOP.SHANE=BOTH.BSHACE=POTH	453	ΔA
_	P1=327.,85.,-72.	454	AA
	F2=3278575.	455	AA
	P3=32485+72.	456	AA
	P4=324., R5., -72.	457	AA
	PROF=09.	458	AA
	COMET. MOST FORWARD EVAPORATORLOOKING +4.6 IN CIA.*	459	AA
5	SURFN=700, TYPF=DISC, ACTIVE=8CTH. ESHACE=8OTH. SHADE=8CTH	460	АА
.,	EIMFNSICNS=70022.5.0360.	461	44
•	TCSN=16, FPCP=0., 0.	462	AA
	CON=*SUFER ENGINS (CMS LOCATION)+Y*	463	AA.
S	SUPFN=702, TYPE=0 ISC. ACTI VE=BOTH. FSHADE=BOTH. SHADE=BOTH	464	AA
3	CIMENSIONS=70022.5.0360.	465	, ΔΔ
	1CSN=17. FPOP=00.	456	ĀĀ
	COM= V SUFER ENGINS (OMS LOCATION)Y*	467	AA
_	• • • • • • • • • • • • • • • • • • • •	468	AA
S	SURFN=24.TYPF=BISC.ACTIVF=BOTH.SHADE=NO.BSHADE=BCTH	469	AA
	F1=-76F.,134.,59.	473	AA
	F2=-765.,134.,62.	471	AA 2
	F3=-767.42,132.97,59.	472	26
	P4=+767.87,132.97,59.	473	AA
	FPOP=0., C.		24
_	COM=*PACK PCSLOOKING +/- Y.(10 BEG CANT) .*	474	ΔΔ
S	SURFN=18, TYPF=CISC.ACTIVE=BOTH.SHADE=BOTH.BSHADE=BCTH	475	44 44
	F1=467.5,50.,-48.9	476	
	F2=470+5+57++ - 48+9	477	AA
	F3=467.5,F2.457,-47.18	478	AA
	F4=467=F,52-457,-47-18	479	AA
	FPOP="., C.	480	AA
	COM=#FRCNT RCSLCCKING +/-Y AT 45 DEG. 7/23/74*	481	ДД -
S	SURFN=26.TYPF=CISC.ACTIVE=BOTH.SHADE=NO.BSHADE=BOTH	482	44
	F1=-76511857.	483	4.4
	F2=-765.,115.,57.	484	AA
	FR=+768.03,118.,57.00	485	AA
	F4=-768.03,118.,57.00	486	AA
	£0.00=0 + * C *	487	ΔĄ
	COM=*EACK RCS LOCKING +/- Z7/23/74.*	488	6.4
S	SURFN=16,TYPF=CISC,ACTIVE=BOTH,SHADE=BOTH,BSHADE=POTH	489	ΔA
	F1=-247.,105.,-21.	490	AA
	F2=-24711524.	491	Δ¢
	F3=-250.,105.,-21.	492	AΔ
	F4=-250.,105.,-21.	493	AA
	FP0P=0.,0.	494	AA
	COM=*MTCOLE EVAP. LOOKING +/~ Y*	495	<u>A A</u>
•	SURFN=1AC,TYPE=RECT,ACTIVF=BOTH,SHADE=NO,BSHACE=BOTH	496	ρA
	£1=230.,132.,19.	497	`AA
	F2=230.,103.,19.	, 498	AA
	#3=55.,103.,19.	499	AA

REPRODUCESTITY ORIGINAL PAGE 5 POOR MHI

PRCP=J..C.

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INFUT CARD CCL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 € 2345678 7 2345678 8 EDIT NO. OLD EDIT NC. LABEL
                                                                                                             500
                                                                                                                                  AA .
                            FPOP=0..0.
                                                                                                                                  ΔΔ
                                                                                                             501
                            COM=*...THIN STRIP BETWEEN DOORS AND ROBY(7/25/74).1ST FRONT*
                                                                                                                                  AA
                                                                                                             532
                            SURFN=168, TYPE=RECT, ACTIVE=BCTH, SHADE=NC, BSHACE=ECTH
                   S
                                                                                                                                  ΔΔ
                                                                                                             533
                            £1=55..1(2..19.
                                                                                                                                  ΔA
                                                                                                             504
                            F2=55..103..19.
                                                                                                                                  ۵۵
                                                                                                             535
                            F3=-120..103..19.
                                                                                                                                  ΔA
                                                                                                             506
                            FPCP=0..C.
                                                                                                                                  AA
                            COMET...THIN STRIP BETWEEN DOORS AND BODY(7/25/74).2NE FRONT
                                                                                                             507
                                                                                                                                  AΔ
                            SUPFN=164.TYPF=PFCT, ACTIVE=BOTH, SHADE=NO.BSHACE=BOTH
                                                                                                             518
                   S
                                                                                                                                  AA
                                                                                                             509
                            F1=-120..102..19.
                                                                                                                                  ΔΛ
                                                                                                             510
                            F2=-120..103..19.
                                                                                                                                   ДΑ
                                                                                                             511
                            F3=-295..133..19.
                                                                                                                                   88
                                                                                                             512
                            PROP=0..0.
                                                                                                                                   ΔД
                            COM=*...THIN STRIP BETWEEN DOORS AND BODY(7/25/74).3RD FND...
                                                                                                             513
                                                                                                                                   AΑ
                                                                                                             514
                            SURFA=166.TYPE=RECT.ACTIVE=BCTH.SHADE=NC.BSHACE=BCTH
                   5
                                                                                                                                   ΛД
                                                                                                             515
                            F1=-295..192..19.
                                                                                                                                   AA
                                                                                                             516
                            f2=-295..103.,19.
                                                                                                                                   ΔΔ
                                                                                                             517
                            FR=-470.,103.,19.
                                                                                                                                   AΔ
                                                                                                             518
                            PROP=0...".
                                                                                                                                   AΑ
                            COM=*...THIN STRIP BETHEEN DOORS AND BODY(7/25/74).4PD END...
                                                                                                             519
                                                                                                                                   44
                                                                                                             520
                            SURFN= 359.SHACE=BOTH.BSMADE=BOTH.ALFHA= .900.EMISS= .900
                   S
                                                                                                                                   AΛ
                                                                                                             521
                                                                                       2
                            TPAKS=-1. .TRANT=-0.
                                                      .COM=*VEPT. FIN LDG. EDGE
                                                                                                                                   AAN
                                                                                                             522
                            TYPE=RECTANGLE .ACTIVE=TCP.
                                                            .ALPH= 0.
                                                                                                                                   AA
                                                                                                             523
                            PPIN=-6.C0000F+PC.BMAX= 6.C000PE+C0.GMIN=-5.56000E+02
                                                                                                              524
                                                                                                                                   ДΑ
                                                       1 . NNY=
                                                                  1.ICSN=
                            GMAX=-2.10000E+02.NNX=
                                                                                                                                   AA
                                                                                                              525
                                                                . 4.9540BF+02
                            FOSITION= 1.65840E+03. 0.
                                                                                                                                   AA
                                                                                                              526
                                                           = -45.0000, ROTX
                                                                                      Π.
                                                . ROTY
                            ROTZ
                                     = -0.
                                                                                                                                   AA
                                                                                                              527
                   BCS
                            SPLAR
                                                                                                                                   ΔA
                                                                                                              528
                          SUFF=1000, TYPE=CYL, ACTIVE=CUT, BSHAEF=BCTH, SHADE=BOTH
                                                                                                                                   ОΔ
                                                                                                             529
                             TOSN=50
                                                                                                                                   AA
                                                                                                              531
                          P1=582.,8.,366.
                                                                                                                                   ΔΔ
                                                                                                              531
                          P2=582..31.5,366.
                                                                                                                                   ΔΔ
                                                                                                              532
                          P3=582.,31.5,366.
                                                                                                                                   ΔΔ
                                                                                                              533
                          P4=672.4.31.5.400.
                                                                                                              534
                                                                                                                                   AΛ
                          PFCP=0..0.
                                                                                                                                   ДД
                                                                                                              535
                          COME TURNEL 1. X=582 TO 672.4. SPECELARS *
                                                                                                                                   AA
                                                                                                              536
                          SUFF=1010, TYPE=CYL, ACTIVE=OUT, BSHACE=ACTH, SHADE=EOTH
                                                                                                              537
                                                                                                                                   ΔΔ
                          1 ICSN=53
                                                                                                                                   44
                                                                                                              538
                          P1=672.4.0.,430.
                                                                                                              539
                                                                                                                                   ΔΔ
                          P2=672.4.31.5.408.
                                                                                                                                   ДΔ
                                                                                                              543
                          P3=672.4.31.5.400.
                                                                                                                                   ΔΔ
                                                                                                              541
                          F4=731.4,31.5,490.
                                                                                                                                   44
                                                                                                              542
                          PPCP=0..0.
                                                                                                              543
                          CCP=* TENNEL 2, X=672.4 TO 790.4, SPACELARI .SEG 1
                                                                                                                                   Δ٨
                                                                                                              544
                          SURF = 1015, TYPE=CYL.ACTIVE=CUT.BSHACE=BCTH.SHACE=BOTH
                   S
                                                                                                              545
                                                                                                                                   ΔΔ
                             TOSK=50
                                                                                                                                   ΔΔ
                                                                                                              546
                          P1=731.4.9..438.
                                                                                                              547
                                                                                                                                   ΔΔ
                          r2=731.4,31.5,480.
                                                                                                              548
                                                                                                                                    ДΑ
                          F3=731.4.31.5,400.
                                                                                                                                    ΔΔ
                                                                                                              549
                          F4=790.4.31.5.400.
                                                                                                                                    AA
                                                                                                              550
```

INPUT CARD CCL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NC. LABEL

	COM= TUNNEL 2, X=672.4 TO 790.4, SPACELAB1 ,SEG 2 *	551	AA
S	SURF=1020.TYPE=CCNE,ACTIVE=OUTSIDE,SHADE=BOTH,BSHADE=BOTH	552 ·	AA
	ICSN = 50	553	ДД
	P1=816.1,C.,400.	554	βA
	P2=816.1,79.9,400.	555	ДД
	P3=816.1.79.9.400.	· 556	AA
	P4=773.68,6.,400.	5 57	AA
	P5=790.4,31.5,400.	558	AA AA
	PR(P=1.,0.	559	AA
•	CCP=*FND CCNE, X=790.4 TO 816.1, SFACELAB 1 .	560	AA ·
S	SUFF=1200,TYPF=DISC.ACTIVE=BOTH.SHACE=BOTH.BSHACE=BOTH	561	ΔA
	1C2v=23	562	ρA
	P1=802.1,0.,425.44	563	角角
	P2=802.10,3.C,425.44	564	AA
	P3=804.74,C.00,42€.84	565	AA
	P4=804.74,C.,426.84	566	AA
	FR(F=5.,0.	567	AA
	COMETECS CONCENSATE VENT 602.1, SPACELAB 1 *	568	ΔA
S	SUPF #1030, TYPE=CYL,ACTIVE=CUTSIDE, SHADE=BOTH,8SHADE=BCTF	569	ДД
	TCSN=53	570	AA .
	P1=816.1,0.,400.	571	AA
	P2=81F.1,75.9,400.	572	AA
	P3=816.1,79.9,400.	573	AA N
	P4=922.,79.9,400.	574	AA oo
	PR(P=0.,0.	5 7 5	ДΛ
	COME CORE SEGMENT X=816.1 FC 9.22. SPACELAR 15	576	۵۵
S	SUFF=1040.TYFF=CYL.ACTIVE=CUTSIDE.SHADE=BOTF.BSHADE=ECTF	577	ΔA
	1CSN=50	578	44
	P1=922.,0.,40).	579	ДД
	P2=922.,79.49.400.	581	ДД
	P3=922.,79.0,400.	581	A P
	P4=1927.9,79.9,403.	582	AA
	PR(P=0 ++0+)	583	AA
	COM= * EXPERIMENT SEGMENT X=922 TO 1027.9, SPACELA81*	584	AA
.S	SURF=1050,TYFE=CCNE,ACTIVE=OUTSIDE,SHADE=BOTH,BSHACE=BCTH	585.	AA
	ICSN=50	5 86	AA
	£1=1027.9,C.,400.	587	AA
	P2=1027.9.79.9.400.	588	AA
	F3=1827.9.79.9.40E.	589	AA
	P4=1078.97.5.,400.	59¢	AA
•	P5=1059.3,25.6,400.	591	AA
	PRCF=00.	592	AA
	COF=* AFT CONE TAFER. X=1027.9 TO 1059.3 SPACELAB1*	593	AA
S	SUFF = 1 C FO. TYPE=CYL, ACTIVE=CUTSIDE, SHADE=BOTH, BSHADE=BOTH	594	AA
	ICSN=50	595	AA
	P1=1059.3, C.,400.	596 .	AA
	P2=1059.3,25.6,400.	597	AA
	P3=1059.3,25.6,400.	598	AA
	54=1088.8.25.6.40(.0	599	AA
	PRCP=0.,9.	600	AA
	CCM=* AFF MIRLOCK, X=1059.3 TO 1088.8. SPACELAB1*	601	ДД

INPUT CAFO CCL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

\$	SURF=1065, TYPE=DISC, ACTIVE=TOF, SHACE=PCTH, BSHACE=BCTH	602	AA
	ICSN±50	603	AA
	P1=1088.8,0.,400.	604	AΛ
	P2=1788.8,25.6,40C.	635	AA
	P3=1080.8,00.0,475.6	696	AA
	P4=1088.8.00.0.425.6	607	AA
	FRCP=0.,0.	608	ŅΑ
	COP= # AFT AIRLOCK DISC X= 1988.8. SPACELARI#	609	ДД
5	SURF = 107C, TYPE = CYL + ACTIVE = CUTSIDE + SHADE = BCTH + BSHADE = BCTH	€10	AA
	TCSN=5?	€11	AA
	P1=1101.2,C.,4C0.	€12	AA
	P2=1101.2.78.8.400.	613	ДΑ
	P3=1101-2,-78-8,400.	614	AΛ
	P4=1215-2-73-8-40C-	61 5	AA
	FRCP=09-	€16	ДД
	COM = * FALLET BOTTOM CYLINDER X= 1101.2 TO 1215.2 *	617	. ΔΨ
s	SURF = 1080, TYPS = RECT, ACTIVE = CUTSIDE, SHADE = BCTH, ESHADE = ECTH	618	AΛ
u	ICSN=59	619	AA
	P1=1101.2,+78.8,400.	€20	A 4
	F2=1215.2,-78.8,40C.	. 621	ДД
	P3=1215.2,-78.8,414.	€ 2 2	ΔΔ
	PR(P= 00.	623	ΔA
	COM= # -Y PALLET CUTSICE STRIP *	624	AA .
S	SURF = 1081, TYFE=RECT, ACTIVE=TOP, SHACE=PCTH, BSHACE=BCTH	625	AA G
3	1024 = 20	626	AΔ
	P1=121F.2,79.9,414.	627	AA
	P2=1215,2,78.8,400.	628	ΔΔ
	63=1131.2,7P.B.400.	629	AA
	PPCP= 00.	630	AA
	COP=+ +Y FALLET OUTSIDE STRIP +	631	AΑ
_	SURF=1062, TYPE=RECT, ACT DVE=TCP, SHACE=BCTH, BSHACE=BCTH	€32	ДД
5	TCSN=50	633	ΔΔ
		634	AA
	P1=1101.2,-78.8,414.	635	ΔΑ
	P2=1215.2,-78.8,414.	€ 36	ΔA
	P3=1215.2,-72.8,414.	637	ΔА
	PR(P=0.,0. COV==-V PALLET FOR STRIP X=1101.2 TO 1215.2 *	638	ΔA
_	SUFF=1083, TYFE=RECT, ACTIVE=TCP, SHACE=8CTH, BSHACE=8CTH	639	AA
S		643	AA
	ICSN=50	641	ΔA
	91=1101.2,72.8,414.	642	AA
	P2=1215.2,72.8, 414.	643	AA
	P3=1215.2,78.8.414.	644	AA
	PRCP=C++0+	645	AA
	CO+= * +Y FALLET TCP STRIP ,X= 1101.2 TO 1215.2 *	646	· 84
S	SURF = 1884, TYPE = RECT, ACTIVE = TOP, SHACE = BCTH, BSHADE = BOTH	647	AA
	JCSN=50	648	AA
	P1=1151.2,-72.8,414.	549	44
	P Z=1 215 · 2 · - 7 Z · B · 41 4 ·	650	AΔ
	P3=1215.?,-58.5,371.	651	AA
	PRCP=00.	652	44 44
	CON = 4 -Y INSTRE TOP PANNEL . X=1191.2 TO 1215.2 *	926	ρH

INPUT CARD COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 E 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

S	SURF=1085.TYPE = RECT.ACTIVE=TOP.SHADE=80TH.8SHADE=80TH	€53	AA
•	ICSN=50	654	AA
	P1=1215.2.58.5.371.	655	AA -
	P2=1215.2.72.3.414.	656	AA
	F3=1101.2.72.8.414.	657	AA
	PRCP=C 1.	658	AA
	COF= * +Y INSIDE TOP PANNEL, X=1101.2 TO 1215.2 *	659	ДД
S	SUFF=1086, TYPE= RECT, ACTIVE=TOP, SHADE=80TH, BSHADE=8CTF	661	ДД
3	ICSN=50	661	AA
•	P1=1101.2.+58.5.371.	662	ДД
	P2=1215.258.5.371.	663	AA
	P3=1215.2, +34.5,344.3	664	ДД
	FR(F=00.	665	ДΑ
	COM= + -Y INSIDE ECTION PANNEL, X=1101.2 TO 1215.2 *	666	ΔA
S	SUFF = 1087, TYFF=RECT, ACTIVE=TCP, SHADE=BCTH, BSHADE=BOTH	667	ΔA
3	TCSA=50	668	. AA
		669	ДД
	P1=1101.2,34.5,344.3	670	, ΔΔ
	P2=121F.2,34.5,344.3	671	ΔΔ
	P3=1215.2,5A.5,371.	672	ДД
	PR(P=0., 0.	673	AA
_	COMES AV INSIDE MOITON FANNEL, X 1101.2 TO 1215.2 *	674	AA
\$	SUFF=1088 , TYPE= RECT.ACTIVE=TOP.SHADE=BOTH.BSHADE=BOTH	675	س مُمَّ
	TCSN=50	676	ο α _α
	P1=1101.2, -34.5,344.3	677	AA
	NC=1C1D+C+-14+D+344+D	678	. AA
	P3=1215.2,34.5,344.3	- · ·	AA
	PPCT= 00.	679	AA
	COM = " PALLET SCITOH, X= 1101.2 TO 1215.2 F	699	AA
S	SURF=1100, TYPE=DISC, ACTIVE=BCTH, SHACE=EOTH, BSHACE=ECTH	681	AA AA
	ICSN=58	682	•
	P1=627.,0.,418.19	683	AA
	P2=698.22,C.,411.35	1 684	AA
	P3=627.,25.,418.19	685	AA
	P4=627.,25.,418.19	686	AA
	PR(P = 0€.	687	AA
	COP = * TUNNEL EVA HATCH X=627. SPACE LAB 1*	688	AA
5	SUFF=1110.TYFF=DISC.ACTIVE=BCTH.SHPDE=BCTF.BSHADE=BOTH	689	ДД
	TCSN=50	693	AA
	P1=869n489.9	691	AA
	P2=86919.7.480.9	692	ДД
	P3=649.3.9480.9	693	AA
	P4=849.3.j.,480.5	€94	AA
	FP(P=00.	695	ДД
	COM= * CORE SEGMENT WINDOW, X=869. SPACELAR 1 *	696	AA
S	SUFF=1120.TYFE=DISC. ACTIVE=BOTH.SHADE= BOTH. BSHADE=BCTH	697	AA
-	T.C.S.N=50	698	AA
	F1=9759.480.9	699	26
	P2=07525.6.480.9	733	ΔA
	P3=949_4+0-+480+9	701	ΔΔ
	P4=949.4.18490.69	702	ДД
	PP(P=0	7 7 3 3	AA

SURFACE DATA INPUT BLOCK

P4=1043.6,7.85,455.09

COM=* AFT VIEWING WINDOW X=1043.6, SPACELAB1*

PPCP=0.,0.

INPUT CARD CO	L. = 1234	.5678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 € 2345678	7 2345678 8 EDIT NO. OLD EDIT NO.	LAREL
	_	COM=* EXPERIMENT SEGIMENT WINDOW,X=975. SPACELAR 1* SURF=1130,TYPE=DISC,ACTIVE=BOTH,SHADE=BOTH,BSHADE=BOTH	693 694	AA AA
	S	ICSN=5]	695 696	AA Aa
		P1=1343.6.0.,455.09 P2=1039.43.0.,461.74	697 698	AA AA
		P3=1043.6,7.85,455.09	699	AA

AA

700

701

SPACELAB-1 VIEWFACTOR DATA MATRIX

The following pages contain the viewfactor data computer printouts for the Spacelab-1/Orbiter configuration.

+ TRAP

+ CISC

+Y REAR SIDE TAPER

...-Y CWS SEALER ...

20 FF SUM = .1452 RCW CP TIME =

145 FF SUF = 0.

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	Ċ

146 FF SUM = 9. RCM CP TIME = 1.382 - TRAP - Y. REAR SIDE TAPER 707 FF SUM = 0. RCM CP TIME = 2.861 - DISCJULY 8 EVAP3 IN. RAD. 708 FF SUM = 9. RCM CP TIME = 1.204 • DISCJULY 8 EVAP3 IN. RAD. 147 FF SUM = 0. POW CP TIME = 5.193 • PARAB TOP ENGIN 148 FF SUM = 0. PCM CP TIME = 3.005 • PARAB TOP ENGIN 149 FF SUM = 0. PCM CP TIME = 2.588 • FARAB - Y ENGIN 149 FF SUM = 0. PCM CP TIME = 2.588 • FARAB - Y ENGIN (* INCICATES NOTE PAIR LAS EEEN SUBDIVICED): (R INCICATES NOTE PAIR LAS EEEN SUBDIVICED): (R INCICATES NOTE PAIR LAS EEEN SUBDIVICED): 1002 CAL												
708 FF SUM = 0. RCM CF TIME = 1.204 + DISCJULY 8 EVAP3 IN. RAD. 147 FF SUM = 0. PON CF TIME = 5.193 + PARAB TOP ENGIN 148 FF SUM = 0. PCM CF TIME = 3.005 + PARAB + Y ENGIN 149 FF SUM = 0. PCM CF TIME = Z.988 + FARAB - Y ENGIN (* INCICATES NOBE PAIR HAS EEEN SUBDIVICED): (R INCICATES NOBE PAIR HAS EEEN SUBDIVICED): (R INCICATES FF CALCULAIED FROM J TO I) NOBE I NOBE J COMPUTATION FE(I,J) FE(J,I) FA(I,J) F (I,J) SHAD. E SHAD. A CF TIME M/SHAD W/SHAD W/SHAD HO/SHAD FACICE FACICE (SEC): 20 1039 CAL002388 .000167 .002388 .002386 fACICE FACICE (SEC): 21 1040 CAL005881 .00048 .002885 .009970 .775860 .775899 .775869 .775899 .775869 .775899 .7	146	FF SUM	= 0.	ROW CP 1	TIPE =	1.382		- TRAP	- Y.	REAR ST	DE TAPER	•••
147 FF SUM = 0. PON CP TIME = 5.193 + PARAB TOP ENGIN 148 FF SUM = 0. PCH CP TIME = 3.005 + PARAB + Y ENGIN 149 FF SUM = 0. PCH CP TIME = 2.988 + FARAB - Y ENGIN (** INCICATES NOBE PAIR FAS EEEN SUBDIVIOED): (R INCICATES FF CALCULATED FROM J TO 1) NOBE I NOBE J COMPUTATION FE(I,J) FE(J,I) FA(T,J) F (T,J) SHAD. E SHAD. A CP TIME M/SHAD M/SHAD H/SHAD	707	FF SUM	= 0.	RCW CP	TTRE =	2.861		- DISC	••••	.JULY 8	EVAP3	IN. RAO.
148 FF SUP = 0. RCW CP TIME = 3.005 + PARAE + Y ENGIN 149 FF SUM = 0. PCW (P TIME = 2.988 + FARAE -Y ENGIN (* INCICATES NOBE PAIR FAS EEEN SUBDIVICED):	708	FF SUM	= 0.	RCW CP	TIME =	1.204		• DISC		.JULÝ 8 i	EVAP3	IN. RAD.
148 FF SUM = 0. RCH CP TIME = 3.005 + PARAE + Y ENGIN 149 FF SUM = 0. PCM (P TIME = 2.988 + FARAE - Y ENGIN (* INTICATES NODE PAIR FAS EEEN SUBSTVICED): (R INCICATES FF CALCULATED FROM J TO I) NODE I NODE J COMPUTATION FE(I, J) FE(J, I) FA(I, J) F (I, J) SHAD. E SHAD. A CP TIME W/SHAD W/SHAD W/SHAD HO/SHAD FACTOR FACTOR (SEC): 20 1030 CAL002388 .000167 .002388 .002881 .0000000 1.000000 1.607 29 1040 CAL005861 .000488 .005851 .005851 1.000000 1.000000 1.679 20 1050 CAL055864 .000272 .005856 .009970 .875869 .875869 2.752 20 1060 CAL003103 .002427 .003103 .003103 1.000000 1.000000 3.572 R 20 1081 CAL003709 .008625 .003709 .003709 1.000000 1.000000 3.572 R 20 1081 CAL005709 .008625 .003709 .003709 1.000000 1.000000 5.130 R 20 1082 CAL006747 .004052 .000747 .00747 1.000000 1.000000 5.330 R 20 1083 CAL005846 .031716 .005846 1.000000 1.000000 6.533 R 20 1084 CAL005846 .031714 .005846 1.000000 1.000000 6.533 R 20 1084 CAL005846 .031714 .005846 1.000000 1.000000 6.533 R 20 1086 CAL015514 .011144 .015514 .015514 1.000000 1.000000 6.533 R 20 1086 CAL01599 .011945 .011959 1.000000 1.000000 6.533 R 20 1086 CAL01599 .011945 .011959 1.000000 1.000000 6.533 R 20 1086 CAL01599 .011945 .011959 1.000000 1.000000 6.533 R 20 1086 CAL01599 .011945 .011959 1.000000 1.000000 6.534	147	FF SUM	= 0.	PON CP	TIME =	5.193		+ PARAE	TOP	ENGIN		
(* INCICATES NODE PAIR FAS EEEN SUBDIVICED): (R INCICATES FF CALCULATED FROM J TO I) **NODE I NODE J COMPUTATION FE(I,J) FE(J,I) FA(I,J) F (I,J) SHAD. E SHAD. A CP TIME M/SHAD M/SHAD M/SHAD HO/SHAD FACTOR FACTOR (SEC): 20 1039 CAL002388 .000167 .002388 .002388 1.000000 1.000000 1.879 1040 CAL0025851 .000408 .005851 .005851 1.000000 1.000000 1.879 1050 CAL002566 6.00272 .052526 .052526 .052526 .075869 .875869 .875869 2.752 1060 CAL003103 .002427 .003103 .003103 1.000000 1.000000 3.033 100 CAL .003103 .002427 .003103 .003103 1.000000 1.000000 3.033 100 CAL .003709 .008625 .003709 .003666 1.000000 3.572 R 1065 CAL .000747 .004052 .003709 .003666 1.000000 5.138 R 1062 CAL .000747 .004052 .000747 .000000 1.000000 5.138 R 1063 CAL .005846 .031716 .005846 .005846 1.000000 1.000000 5.138 R 1063 CAL .005846 .031716 .005846 .005846 1.000000 1.000000 6.518 1064 CAL .015514 .011544 .015514 .015514 1.000000 1.000000 6.518 1065 CAL .003710 .002665 .003710 .00		FF SUP	= 0.	RCH CP	T]#E =	3.005		+ PARAE	+ Y	ENGIN		
NOBE I NOBE J COMPUTATION FE(I,J) FE(J,I) FA(I,J) F (T,J) SHAD. E SHAD. A CP TIME W/SHAD W/SHAD W/SHAD HO/SHAD FACTOR FACTOR (SEC): 20 1039 CAL005881 .000488 .005881 .005881 1.000000 1.000000 1.8079 20 1050 CAL005881 .000488 .005881 .005881 1.000000 1.000000 1.879 20 1050 CAL055266 .009272 .095286 .009970 .875869 .875869 2.752 20 1060 CAL003103 .002427 .003103 .003103 1.000000 1.000000 3.033 20 1065 CAL003103 .002427 .003103 .003103 1.000000 1.000000 3.033 20 1065 CAL009669 .017427 .009669 .009669 1.000000 1.000000 3.572 R 20 1081 CAL003709 .008625 .003709 .003709 1.000000 1.000000 4.149 R 20 1082 CAL00747 .004052 .000747 .300747 1.000000 1.000000 5.138 R 20 1083 CAL005846 .031716 .005846 1.000000 1.000000 6.618 20 1084 CAL005846 .031716 .005846 1.000000 1.000000 6.618 20 1085 CAL005710 .003709 .019514 .015514 1.000000 1.000000 6.618 20 1086 CAL003710 .002665 .003710 .003710 1.000000 1.000000 6.618 20 1086 CAL003710 .002665 .003710 .003710 1.000000 1.000000 6.843 20 1086 CAL003710 .002665 .003710 .003710 1.000000 1.000000 7.307 20 1086 CAL003710 .002641 .003710 1.000000 1.000000 7.307 20 1087 CAL00441 .005840 .001959 .011959 1.000000 1.000000 7.307	149	FF SUK	= 0.	PCW CP	TIME =	2.988		+ FARAE	-Y E	NGIN		
Note Note			(
20 1039 CAL0C388 .0C0167 .002388 .0C5851 1.0C0CCC 1.0CCCC 1.879 20 1040 CAL0C5851 .0C0408 .0C5851 .0C5851 1.0C0CCC 1.0CCCCC 1.879 20 1050 CALC52526 .0C9272 .052526 .0C9970 .275869 .875869 2.752 20 1060 CALC03103 .DC2427 .OD3103 .CC3103 1.CCCCCC 1.0CCCCC 3.033 20 1065 CALC09669 .017427 .D09669 .0C9669 1.CCCCCC 1.CCCCCC 3.033 20 1081 CALC09669 .008625 .OD3709 .CC3709 1.CCCCCC 1.CCCCCC 4.149 R 20 1082 CALCC747 .OO4052 .ODC747 .0C747 1.CCCCCC 1.CCCCCC 5.138 R 21 1083 CALCC5846 .O31716 .D05846 .O05846 1.OCCCCC 5.138 R 20 1084 CALCC5846 .O31716 .D05846 .O05846 1.CCCCCC 6.084 R 20 1084 CALCC5514 .C11144 .D15514 .O15514 1.CCCCCC 6.984 R 20 1086 CALCC571C .CC2665 .OO3710 .DC371C 1.COCCCC 6.843 20 1086 CALCC6441 .CC5840 .O11959 .O11955 1.CGCCCC 7.307 20 1087 CALCC6441 .CC5840 .D06441 .OC7381 .972652 .872652 7.741		NOBE J	COMPUTATION									
20 1040 CAL005881 .000408 .005851 1.00000C 1.000000 1.879 20 1050 CAL052526 .009272 .052526 .059970 .875869 .875869 2.752 20 1060 CAL003103 .002427 .003103 .003103 1.000000 1.000000 3.033 20 1065 CAL009669 .017427 .009669 .009669 1.00000C 1.000000 3.572 R 20 1081 CAL003709 .008625 .003709 .003709 1.000000 1.000000 4.149 R 20 1082 CAL00747 .004052 .000747 .00747 1.00000C 1.000000 5.138 R 21 1083 CAL005846 .031716 .005846 .005846 1.00000C 1.000000 5.138 R 20 1084 CAL015514 .011144 .015514 .015514 1.00000C 1.000000 6.518 20 1086 CAL003710 .002665 .003710 .003710 1.000000 6.843 20 1086 CAL011959 .019843 .011959 .011955 1.00000C 1.000000 7.307 20 1087 CAL005844 .005844 .005844 .007381 .972652 .872652 7.741						00.0300	0.0220	4 060000	4 000000	1 507		
20 1050 CALC52526 .069272 .052526 .059970 .675869 .875869 2.752 20 1060 CALC03103 .D02427 .003103 .DC3103 1.C00000 1.0CCC00 3.033 20 1065 CALC09669 .017427 .D09669 .0C9659 1.CCD0CC 1.CC0000 3.572 R 20 1081 CAL003709 .008625 .003709 .CC3709 1.000000 1.CCD0C0 4.149 R 20 1082 CAL0C0747 .004052 .D0C747 .3CC747 1.COD0CC 1.CCD0C0 5.138 R 21 1083 CAL0C5846 .031716 .D05846 .D05846 1.000000 1.0CCC0 6.084 R 20 1084 CALC15514 .C11144 .D15514 .015514 1.CC00C0 1.OCCC0 6.518 20 1085 CALC0371C .C02665 .D03710 .DC371C 1.C000C0 1.OCCC0 6.843 20 1086 CALC11959 .C10843 .D11959 .D11955 1.C000C0 1.CCCCC 7.307 20 1087 CALCC6441 .CC5840 .D06441 .OC7381 .472652 .872652 7.741												
20 1060 CAL003103 .002427 .003103 .003103 1.000000 1.000000 3.033 20 1065 CAL009669 .017427 .009669 .009669 1.000000 1.000000 3.572 R 20 1081 CAL003709 .008625 .003709 .003709 1.000000 1.000000 4.149 R 20 1082 CAL00747 .004052 .000747 .00747 1.000000 1.000000 5.138 R 21 1083 CAL005846 .031716 .005846 .005846 1.000000 1.000000 5.138 R 20 1084 CAL015514 .011144 .015514 .015514 1.000000 1.000000 6.518 20 1085 CAL003710 .002665 .003710 .003710 1.000000 6.843 20 1086 CAL001959 .010843 .011959 .011955 1.000000 1.000000 7.307 20 1087 CAL005844 .005844 .005844 .007881 .972652 .872652 7.741			-									
20 1065 CAL003709 .017427 .003669 .009669 1.000000 3.572 R 20 1081 CAL003709 .008625 .003709 .003709 1.000000 1.000000 4.149 R 20 1082 CAL00747 .004052 .000747 .00747 1.000000 1.000000 5.138 R 20 1083 CAL005846 .031716 .005846 .005846 1.000000 1.000000 6.084 R 20 1084 CAL015514 .011144 .015514 .015514 1.000000 1.000000 6.518 20 1085 CAL003710 .002665 .003710 .003710 1.000000 6.843 20 1086 CAL011959 .010843 .011959 .011955 1.000000 1.000000 7.307 20 1087 CAL005844 .005840 .006441 .007381 .972652 .872652 7.741				· - · - ·								
20 1081 CAL003709 .008625 .003709 .003709 1.000000 1.000000 4.149 R 20 1082 CAL000747 .004052 .000747 .300747 1.000300 1.000000 5.138 R 21 1083 CAL005846 .031716 .005846 .005846 1.000000 1.000000 6.984 R 20 1084 CAL015514 .011144 .015514 .015514 1.000000 1.000000 6.518 20 1085 CAL003710 .002665 .003710 .003710 1.000000 6.843 20 1086 CAL011959 .011843 .011959 .011855 1.000000 1.000000 7.307 20 1087 CAL005844 .005840 .006441 .007381 .972652 .872652 7.741												
20 1081 CAL00747 .004052 .000747 .300747 1.000300 1.000000 5.138 R 20 1083 CAL005846 .031716 .005846 1.000000 1.000000 6.084 R 20 1084 CAL015514 .011144 .015514 .015514 1.000000 1.000000 6.518 20 1085 CAL003710 .002665 .003710 .003710 1.000000 6.843 20 1086 CAL011959 .011843 .011959 .011855 1.000000 1.000000 7.307 20 1087 CAL005840 .005840 .006431 .972652 .872652 7.741		-										•
20 1083 CAL0C5846 .031716 .0N5846 .0C5846 1.0C0CCCC 6.084 R 20 1084 CAL015514 .011144 .015514 .015514 1.0C0CCC 1.0CCCCC 6.084 R 20 1085 CAL0C3710 .0C2665 .0C3710 .0C3710 1.0C0CCC 6.843 20 1086 CAL0C1959 .0C19643 .0C1959 .0C1965 1.0C0CCC 7.307 20 1087 CALCC6441 .CC5640 .0C5710 .0C781 4.7C2652 .872652 7.741												
20 1084 CAL015514 .011144 .015514 .015514 1.000000 1.000000 6.518 20 1085 CAL003710 .002665 .003710 .003710 1.000000 6.843 20 1086 CAL011959 .011843 .011959 .011850 1.000000 1.000000 7.307 20 1087 CAL005840 .005841 .007381 .972652 .872652 7.741												
20 1785 CAL0C3710 .C02665 .003710 .RC371C 1.C309CC 1.0CCC00 6.843 20 1786 CALC11959 .C11843 .D11959 .D11955 1.C000CC 1.CCCCC 7.307 20 1787 CALCC6441 .CC5840 .D14959 .7381 .972652 .872652 7.741 21 1787 CALCC6441 .CC5840 .D26441 .CC7881 .972652 .872652 7.741						-					, ,	
20 1086 CAL011959 .011843 .011959 .011955 1.000000 1.000000 7.307 20 1087 CAL005840 .005841 .007381 .972652 .872652 7.741												
23 1987 CALCC6441 .OC5840 .006441 .OC7381 .972652 .872652 7.741												
1967 ALLON DOSTON SCREEN A COURT 4 DOCTOR B. 116							017381	. 972652	.A72652			
50 1388 CMF. •6.52464 •6.1755.7 •66.54.4 •66.54.4 •66.54.4												
	20	1388	UAL.	• U 237 F4	* C115C1	4023704	• U E - 7 () ¬					

8.122

1.389

PCW CP TIME =

(* INCICATES NOTE PAIR HAS BEEN SUBDIVIDED)* (R INCICATES FF CALCULATED FROM J TC I)

NODE I	N00E J	CCMPUTATION	FE(I,J) W/SHAD		FA(I,J) W/SHAD	F (I,J) WC/SHAE	SHAD. E FACTOR	SHAD. A Factor.	CP TIME		
21	10 30	CAL.	.0€2388	.000167	.002368	.002388	1.000500	1.000000	1.712		
21	1349	CAL.		.000408	.005851		1.000000		2.903		
21	1350	CAL.	.052804	.089322	.052804		.080735		2.854		
21	1060	CAL.	.003123	.032427	.003103		1.000000		3.138		
21	1965	CAL.	.009669	.017427	.009669		1.000000		3.672		
21	1980	CAL.	.003789	.008625	.003709		1.000000		4.210		
71	1082	CVF.	.0(5846		.115846		1.000000		5.195		
21	1083	CAL.		.004952			1.006000		6.178		
21	1994	CAL.	.0(3719	.002f65			1.0000000		6.502		
21	1085	CAL.	.015514	.011144	-015514		1.000000		6.933		
21	1086	CAL.	-C(6441				.872652		7.371		
21	1087	CAL.	.011959	.010843	.011959			1.060000	7 - 826		
21	1088	CAL.	.023784	.011221	.023784	.023784	1.000300	1.000000	8.189		
21	FF SUM	= .1455	RCW CP	TIME =	8.196		+ BISC		ONS SEA	LER	
222	FF SUM	= 0.	ROW CP	114E =	1.013		- RECT	PAC	K RECT	7.350EG	
23	FF SUM	= 0.	RCH CP	TIME =	1.131		+ OISC	REAR	END HÁL	F DISK	
407	FF SUM	= ŋ.	PCN CF	TIME =	1.206		+ DISC	BAC	K SIDE E	VAPORAT,	UPDATED
15	FF SUP	= 0.	RCH CP	II#E =	1.210		+ DISC	REAR	END EVA	PCRATOR	
10	FF SUP	= 0.	РСИ СР	TIME =	17.267		- TRAP		EFI FRON	T WING	A
11	.1030	CAL.	.000556	.009423	.000556	.00687	.809501	.005501 .018409	.962 2.709	*	
11	1040	CAL.	.00.0114	.000087	•000114	.906199	• #1 04 #3	*815483	2.107	·	
11	FF SUM	= .0007	PCW CP	TTME =	4.649		+ TRAP		LEFT MI	CBLE WIN	G BACK.8

	•	(R INCICATE	ES FF CALC	SLATED FROM J TO I	1
NODE I	NODE J CCMPUT	ATICN FE(I,J) FF(J,I) W/SHAD W/SHAD,	FA(I,J) W/SHAD	F (I.J) SHAO. E WOZSHAE FACTER	SHAC. A CP TIPE FACTOR (SEC):
141	FF SUM = 0.	RCW CP TIME =	9.850	+ PECT	ES INNER WING
12 12	1030 CAL 1040 CAL	0(0281 .000236 0(0529 .000444	.000281	.000388 .725381 .000804 .658039	.725381 .910 .658839 1.878
12	FF 5UP = .0	COB ROW OF TIME =	2.559	+ RECT	LEFT BACK PEGT. WING C
142	FF SUM = 0.	BOM CO TIME =	2.413	+ RECT	INNER WING C
13	FF SUM = 0.	RCH OP TIME =	2.330	+ TRAP	LEFT WING TAIL EDGE
1	FF SUM = 0.	RCH CP TIME =	22.435	+ TRAP	FRCNT WING TRIANGLE PT.A.58
2		0(0556 .000423 0(0114 .000087	.000556	.000687 .809501 .006199 .018409	.018469 2.844
2	FF SUP # .0	037 RCW CP TIME =	41781	- TRAP	PIDDLE WING TRAP, RT B
143	FF SUP = 0.	RCW CP TIME =	10.025	- RECT	e +Y RECTANGLE WING
3 3		0(0281 .000236	.000281	.000386 .725361 .000804 .658039	.725381 .916 .658039 1.089
3	FF SUP = .0	COB ROW CP TIME =	2.569	- RECT	EACK WING RECT. RTC -129
144	FF SUM = 0.	RCW CP TIME =	2.479	- RECT	INNER WING C RECT
Ĺş	FF SUF = 0.	RCM CT TIME =	2.374	- TRAP	WING TAIL FLAP RT 1453,1507
150 150 150	1730 CAL 1740 CAL 1750 CAL	001251 .000660	1 251 90.	.000205 1.000000 .001751 1.000000 .073109 .520691	1.000000 1.418 1.00000 1.632 .520691 2.960 R

(* INCICATES NODE PAIR HAS BEEN SUBDIVIDED):
IN INCICATES FF CALCULATED FROM J TO I)

150 1070 CAL. 150 1081 CAL. 150 1084 CAL. 150 1086 CAL. 150 FF SUM = .4941	W/SHAO •430157 •016158 •015355 •012933 RCW CF •015332 •432843 •094272	.427370 .283866 .029664 .020097 TIME = .013360 .228279	W/SHAD .430157 .016158 .005355 .092933 68.724	.016158 .036435 .026519	FACTOR 1.000000 1.000000 1.000000 .146972 .110619 - CYLN	1.000000 .146972 .110619	(SEC)1 55.260 60.750 65.605 68.382 AREA CYLIN	# R R R
150 .1081 CAL. 150 1084 CAL. 150 1986 CAL. 150 FF SUM = .4941	.016158 .015355 .012933 RCW CP .015332 .432843 .094272	.283866 .029664 .020097 TIME = .013360 .228279	.016158 .005355 .092933 68.724	.016158 .036435 .026519	1.000000 .146972 .110619	1.000000 .146972 .110619	60.750 65.605 68.382	R R R
150 .1081 CAL. 150 1084 CAL. 150 1986 CAL. 150 FF SUM = .4941	.016158 .015355 .012933 RCW CP .015332 .432843 .094272	.283866 .029664 .020097 TIME = .013360 .228279	.016158 .005355 .092933 68.724	.036435 .026519	.146972 .118619	.146972 .110619	65.605 68.382	R
150 1084 CAL. 150 1086 CAL. 150 FF SUM = .4941	.002933 L ROW CF .025332 .432843 .094272	.029064 .020097 TIPE = .013360 .228279	.005355 .092933 68.724	.026519	.113619	.110619	68.382	R
150 1786 CAL. 150 FF SUM = .4941	.002933 L RCW CF .025332 .432843 .094272	.020097 TIME = .013360 .228279	68.724	.026519	.113619			
150 FF SUM = .4941	• 0 25332 • 4 32843 • 0 9 4272	.013360 .228279			- CYLN	PAY (ARĘA CYLIN	DER
	• 0 25332 • 4 32843 • 0 9 4272	.013360 .228279			- CYLN	449 749	ARĘA CYLIN	DER
404 4075 PAL	.432843 .094272	.228279	.025332					
	.432843 .094272	.228279		025332	1.003000	1.000000	4.182	*
151 1040 CAL.	.094272		.432843		1.000000		21.711	
151 1050 CAL.		.125740	.094272	054272	1.068066	1.000000	34.567	₹R
151 1960 CAL		.122745	.020772	.927572	.753398	.753358	35.786	R
151 1070 CAL.	.018229	.E18111	.018229		1.666966	1.0000000	42.753	#
151 1081 CAL.	-0(3955	.016783	.030955		1.600366		43.761	₹R
151 1084 CAL.	.008868	.048132	.008868	014627		.606279	44.634	P
151 1986 CAL.	.005864	.040176	.005864	.002788	.667322	.667322	45.158	R
151 1088 CAL.	.051773	.06309	-901770	.002970	.595885	.595815	46.649	₩R
151 FF SUM = .6789	RCW CR	TIME =	46.657		- CYLN	BAY 4	AREA CYLIN	DER
152 1000 CAL.	.0(94F1	.013877	.099461	.009938	.951915	.951915	2.594	₽R.
	.0 18484	.044382	.018484	.019598			6.508	₩R
	1058030 1058030	139338	.058030	064390	.901229	991229	7.242	R
152 1015 CAL.		.139426	.989210		1.000000		18.413	#R
152 1020 CAL.	.089210	223612	.418305		1.0000000		38.972	
152 1330 CAL-	.418305		.016796		1.000000		43.740	#
152 1140 CAL.	.016706	.008811 .003153	.000164		1.0000000		41.381	
152 1070 CAL- 152 1081 CAL-	.000164 .00014	• £ £ £ £ £ £ £ £ £ £ £ £ £ £ £ £ £ £ £	.000014		1.000000		41.731	R
192 1081 CAC.	*8(6)14	4560541	*******	• 4 6 2 5 1 4	2200000	10000		
152 FF SUM = .6134	RCH CP	TTME =	42.770		- CYLN	694	AREA CYLIN	ICER
153 1000 CAL.	.159010	.233235	.159010	.159016	1.000000	1.000000	1.443	R
153 1000 GAL. 153 1010 CAL.	.080322	.192863	.080322		1.000000	• •	2.438	P
153 1015 CAL.	.037446	.089913	-937446		1.00000C		6.792	#R
153 1020 CAL.	.054125	.079131	.054125	162575	.864965	.864965	7.637	R
	.001148	.000605	.991148		1.000000		8.204	
	.000194	.000103	.000194		1.666066		8.793	
	.000194	.000027	.000027		1.000000	-	9.051	
	.0(0502	.050027	.000005		1.000000		9.434	R
153 10 P1 CAL.	• 4 6 4 3 6 2	********	******	******			2,0101	"
153 FF SUM = .3323	RCW CF	TIPE =	10.441		- CYLN	EAY /	AREA CYLIN	DER
154 1030 CAL.	.090225	.000106	.030205	.00205	1.000000	1.060000	1.580	

(* INDICATES NODE PAIR HAS BEEN SUBCIVICED)* (R INDICATES FF CALCULATED FROM J TC I)

NODE I	NOBE J	COPPUTATION	FE(T,J)	FE(J,I)	FA(I,J)	F ([,J)	SHAD. E	SPAC. A	CP TIME	
MODE 1	econ. o	Quit biality.	MASHAD	WZSHAD	W/SHAD	WC/SHAC	FACTOR	FACTOR	(SEC)!	
			W. 311 · 17							
154	1040	CAL.	.0(1251	.000669	.001251	.001251	1.000000	1.000000	1.795	
154	1050	CAL	.035964	.047969	.035964	.073347	.492344	.492344	3.171	R
154	1070	CAL.	430157	427370	.430157	.438157	1.863000	1.0000000	56.292	*
154	1989	CAL.	.016158	.283866	.016158	-016158	1.000000	1.000000		R
154	1285	CAL.	.0(5355	.029164	.005355	.036435	.146972	.146972	65.795	R
154	10.87	CAL.	.0(2933	.020097	.002933	-026519	.110619	-110619	68.562	R
	• • • • • • • • • • • • • • • • • • • •	7 7								
154	FF SUM	= .4920	PCW CP	TIME =	64.461		- CAFV	EAY	AREA CYLIN	OER
										_
155	1037	CAL.	.02533?	.013360	.025332	.025332	1.000000	1.000000	4.283	*
155	1040	CAL.	.432843		.432843		1.000000		21.793	*
155	1950	CAL	.094272	.125740	.094272	.004272	1.0000000		34.742	₹R
155	1060	CAL.	.010305	.119985	.020305	.027336	742863	.742803		R
155	1378	CAL.	.018229		.018229			1.000000		*
1.55	1989	CAL.	.000955		-C00955		1.060000		43.935	₹Ŗ
155	1085	CAL.	.0088ES	.048132	.008865	.014627	.606279	.606279		R
155	10.87	CAL.	.0[5864	.040176	.005864	.008788	.667322			R #p
1 5 5	1048	CAL.	• BC1770	.006309	.001770	.002970	.595809	.595805	46.852	
							S mare as		40C4 CW TA	
155	FF SUM	= .6084	ROW DE	AILE =	45.8€0		- CYLN	EAT	AREA CYLIN	YUEK
		7.41	. 779461	.013877	.009461	.009938	.951915	.951915	2.518	# R
156	1700	CAL.	.018866	045299	.018866	.019890	.94847€			₹R
156	1710	CAL •	.058815	.141222	.058815	.06385C	.521132			R
156	1715	CAL.	.089753		.089753			1.000000		₩ P
156	1920	CAL. CAL.	.418335		.418395			1.000000	_	#
156	1030	CAL.	.016706		.016706			1.000000		
156	1340	CAL.	.003164		.000164		1.000000		40.939	
156	1070 1070	CAL.	.000114	.000247	.000314			1.006600		R
156	1970	CHE	1000 14	•						
156	FF SUM	= .6121	ROW CP	TIME =	42.326		- CYLK	EAY	AREA CYLIN	NDER
130	, , , , , , ,									
						_				_
157	1000	CAL.	.159702		·158702			1.000000		R
157	1010	CAL.	.080322		.080322			1.000000		R
157	1915	CAL.	.037356		.037356			1.000000		*R
157	1929	GAL.	.054125		.054125	.0E2579	.864965			R
157	1030	CAL.	.0(1148		.071148			1.000000		
157	1940	CAL.	.0[0194	The second secon	.000194			1.000000		
157	1070	CAL.	.000027		.00 GC 27	.00027	1.000000	1.000000	8.901 9.252	R
157	10 0	CAL, .	-000002	.000039	•070002	* C 1880 S	1.000000	1.000000	7.456	ĸ

(* INDICATES NODE PAIR HAS BEEN SUBCIVICED): (R INDICATES FF CALCULATED FROM J TC I)

NODE I	NCDE J	COMPUTATION	FE(I.J)		FA(I,J) W/SHAD	F II,JI WC/SHAD			CP TIME (SEC)+	
157	FF SUP	= .3319	RCW CP	TIME =	10.325		- CYLN	BAY A	REA CYLIN	DER
140	1050	CAL.	.061761	.096027	.961761	.076199	.810527	.810527	3.002	R
149	1069	CAL.	.001088	.007494	.001088			1.000000	3.229	R
147	1065	CAL.	.013873	.223232	.01 1873	.015172			11.714	R
143	1082	CAL.	.001177	.056251	.001177	.001177	1.000000	1.000000	13.025	* R
140	1083	CAL.	.0(1174	.G5€128	.001174	.001174	1.000000	1.000000	14.076	≠R
140	1084	CAL.	.024380	.154256	.024389	.024380		1.000000	16.852	R
143	1985	CAL.	.023765	.150359	.023765	.023931	.93048	.993848	19.632	R
143	1185	CAL .	.018489		.018489	.019727	.937253	.937253	22.564	· 🖰
140	1787	CAL.	018214	.145456	.018214	.018434	.988327	.988027	25.499	R
140	1768	CAL.	.035641	.148095	.035641	.035945	.991541	.991541	28.751	R
144	2 00	67 G F	••••							
145	FF SUM	= .1996	RCH CP	TIME =	28.760		+ DISC	ENO	BAY ARE	A DISK
			*****	.159001	.092990	. 107834	.862347	.862347	11.751	₩R
135	1990	CAL.			.043876	069566			13.117	R
135	1027	CAL.	.043976		000018	.00005€			13.562	R
135	1200	CAL.	.000018	.021484	* UU UU 1 D	• 0 0 0 0 7 0	1021043	1027043		
135	FF SU#	= .1369	RCW CP	TIME =	16.027		+ DISC	FFCN	T BAY ARE	A DISK
122	FF SUM	= 0.	ROW CP	TIME =	1.487		• PARAB	VERY	NOSE CON	E
123	FF SUM	= 0.	RCW CP	TTME =	1.484		+ PARAE	VERY	NOSE CON	E
124	FF SUP	= 0.	ROW CP	TIME =	1.496		+ PARAB	VER	NOSE CON	E
125	FF SUM	= 0.	PCW CP	TIME =	1.483		+ PAPAE	VERI	NOSE CCN	Œ
320	FF SUP	= 0.	PCW CP	#1#E =	.917		+ CYLN	NO	SE CYLING	ER
321	FF SU	′ = 0.	RC% CP	TTHE =	.909		+ .CYL.N	NO	SE CYLINE	ER

			,,	(INCICATE	2 LL CAEC	OF HIER INC. O IC T	•
NODE I	NODE J	COMPUTATION	FE(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SH#O	F (T.J) SHAD. E WC/SHAC FACTER	SHAO. A CP TIME FACTOR (SEG)#
322	FF SUP	= 0.	ROW CP	TIME =	.938	+ CYLN	NOSE CYLINDER
323	FF SUP	= 0.	PCH CP	TTME =	.907	+ CYLN	NOSE CYLINTER
324	FF SUM	= 0.	ROW OP	TIPE =	.912	+ CYLN	NOSE CYLINDER
325	FF SUM	= 0.	FCW GP	TIME =	.912	+ CYLN	NOSE CYLINGER
326	FF SUM	= 0.	RCH CF	TIME =	.911	+ CYLN	NOSE CYLINDER
327	FF SUM	= 0.	ROW CP	TIFE =	.913	+ CYLN	NOSE CYLINDER
328	FF SUM	= 0.	RCW GF	TIME =	1.117	+ CYLN	NOSE CYLINDER
329	FF SUM	· = 0.	ኮርዘ ኖ₽	TTME =	1.089	+ CYLN	NOSE CYLINGER
330	FF ŞUP	· = 0.	RCH CP	TIME =	1.082	+ CYLN	NOSE CYLINDER
331	FF SUR	· = 0.	ROW CP	TIME =	1.086	+ CYLN	NOSE CYLINDER
332	FF SUI	· = 0·	RCW CP	TIME =	1.079	+ CYLN	NOSE CYLINDER
333	FF SU	· = 0.	RCW CP	T1#E =	1.082	+ CYLN	NOSE CYLINDER

نب

MODEL = TAPE3 STEP = 1 FORM FACTOR CALCULATION LINK.

(* INCICATES NOOE FAIR HAS EFEN SUBGIVICED): R INCICATES FF CALCULATED FROM J TC I)

NCOE I	NORE 3	COMPRIVITER	FE(1+J)	Pt (J,1)	PA(1,J)	F (1,J)	·MAU. E	SHAU. A	Ch lime	
			W/SHA D	H/SHAD	W/SHAD	WOISHAD	FACTER	FACTOR	(SEC) *	
				•		1				

		M S S T I I	HISTAU	ואהכינטא טארביאה	. PAGIER PAGIC '	k 1250):
334	FF 5UM = 0	• ROW CP	TIME =	1.098	+ CYLN	NOSE CYLINDER
335	FF SUP = 0	. RCW-CP	TIME =	1.075	+ CYLN	NCSE CYLINCER
340	FF SUP = .0	• RCW CP	TIME =	1-452	+ PARAB	HCCO PARTIAL BACK
341	FF SUF = 0	• RCW CP	TIPE =	1.450	+ PARAE	HOCO PARTIAL BACK
342	FF SUP = 0	• ୧୯୩ ଓଡ଼	TIME =	1.457	+ PARAP	HCCD PARTIAL BACK
343	FF SUP = 0	RCW CP	TIME =	1.456	+ FARAE	HOCO PARTIAL BACK
344	FF SUP = 0.	RCW GF	TI#E =	1.446	+ PARAE	HOCO PARTIAL BACK
345	FF SUF = 0	RCW CF	TIME =	1.443	+ PARAE	HOCO PARTIAL BACK
346	FF SUP = 0.	RCH CP	TIME =	1.456	+ PARAE	HOCD PARTIAL BACK
347	FF SUF = 04	RCW CP	TIME =	1.455	+ PARAB	HOED PARTIAL RACK
348	FF SUP = 0	. РСИ СР	TIME =	1.467	+ PARAE	HOCO PARTIAL BACK
349	FF SUP = 0.	RON CP	TIME =	1.476	+ PARAB	HOCD PARTIAL BACK

MCOEL = TAFE? STEP = 1
FORM FACTOR CALCULATION LINK.

(* TNOTCATES NODE PAIR HAS BEEN SUBCIVICED): (P INDICATES FF CALCULATED FROM J TC I)

NOOE I	NODE J	COMPUTATION	FEIT.J) FF(J. W/SHAO W/SH	I) FACT.J) AD W/SHAD	F 41,J) SHAD. E WC/SHAC FACTER	SHAC. A CP TIME FACTOR (SEC):	
350	FF SUM	= 0.	RCH CP TIME =	1.506	+ PARAE	HCCD PARTIAL	BACK
351	FF SUM	= 0.	PCW CP TIME =	1.489	• PARAB	HOCD PARTIAL	BACK
352	FF SUP	= 0.	PCW CP TIME =	1.451	+ PARAE	HCCD PARTIAL	BACK
353	FF SUP	= n.	ROW OP TIME =	1.452	• PARAE	HOCD PARTIAL	BACK
354	FF SUM	= 0.	RCN CP TIME =	1.476		HCCO PARTIAL	BACK
355	FF SUP	= 0.	RCW OF TIME =	1.479	+ PARAE	HCCD PARTIAL	RACK
360	FF SUM	= 0.	RCW CP TIPE =	1.443	+ FARAE	HINDCH	
361	FF SUM	= 0.	RCW OP TIME =	1.441	+ PARAE	WINDOW	
362	FF SUP	= 0.	RCH CP TIME =	1.449	+ PARAE	NINDCH	
363	FF SUM	= 0.	RCH CP TIME =	1.441	+ PARAE	WINDOW	
364	FF SUM	= 0.	ROW OP TIME =	1.438	+ PARAB	HINDOM	
365	FF SUM	= 0.	PCW CP TIME =	1.438	+ PARAE	HINDCH	

MCDEL = TAPE3 STEP = 1 FORM FACTOR CALCULATION LINK.

(* INDICATES NOCE PAIR HAS BEEN SUBDIVIDED) * (R INDICATES FF CALCULATED FROM J TC I)

NODE I	NOCE J COMPUTATION	FE(I,J) FE(J,I) W/SHAD W/SHAD	FA(I,J) W/SHAD	F (I.J) SHAD. E NC/SHAC FACTER	SHAB. A CP TIME FACTOR, (SEC):	
366	FF SUF = 0.	ROW OF TIME =	1.478	· + PARAB	KINDOM	
367	FF SUP = 0.	PCH CP TIME =	1.448	+ PARAE	MINDON	
368	FF SUM = 0.	RCW CP TIME =	1.462	· PARAE	MINDCH	
369	FF SUM = 0.	RCW CP TIME =	1.455	+ PARAE	MINDCM	
370	FF SUM = 0.	RCW CP TIME =	1.459	+ PARAE	HINDCH	
371	FF SUP = 0.	ROW OF TIME =	1.457	g + FARAE	HINDCH	
	FF SUM = 0.	RCW OP TIME =	1.446	• PARAS	WINDCH .	
373	FF 50F = 0.	RCW CF TIME =	1,443	+ PARAE	HINOCH	
	FF SUP = 0.	RCH CP TIME =	1.455	+ PARAE	HINDCH	
375	FF SUM = 0.	RCW CP TIME =	1.453	+ PARAS	MINDCH	
401	FF SUM = 0.	RCH CP TIME =	1.015	- RECT	BCEY BOTTOM (FRT)	4 1
4,92	FF SUM = 0.	POW OP TIME =	.931	- RECT	BCCY EOITCH (REAR)	402

MCDEL = TAFE3 STEP = 1 FCRM FACTOR CALCULATION LINK.

(* INCICATES NODE PAIR FAS BEEN SUBDIVICEC): (R INCICATES FF CALCULATED FROM J TC I)

NODE I	NODE J CCHPUTATICN	FE(I,J) FF(J,I) W/SHAD W/SHAD	FA(I,J) W/SHAD	F IT.JI SHAD. E WC/SHAD FACTER	SHAE. A CP TIME FACTOR (SEGIE	
152	FF SUP = 0.	ROW OF TIME =	1.225	. + CYLN	CHSPCBC1	,
172	FF SUM = 0.	ROW CP TIME =	1.187	• CYLN	CHSPCDC2	
781	FF SUP = 0.	PCW CP TIME =	1.331	- CYLN	+Y SIDE T	300R
782	FF SUP = 0.	RCW CP TIME =	45.235	• CYLN	+Y SICE (JC0R••••
7 8 3	FF SUP = 0.	PCW CP TTME =	1.304	- CYLN	Y SIDE 1	000R
784	FF SUM = 0.	RCW CP TIME =	19.254	+ CYLN	+Y SIDE (COOR • • • • •
785	FF SUM = 0.	POW CP TIME =	2.859	- CYLN	+Y SIDE 1	00CR
786	FF SUM = 0.	RCW CO TIME =	7.995	+ CYLN	Y SIDE (CCCR
787	FF SUP = 0.	PCW CP TIME =	2.476	- CYLN	Y SIGE (00CR
788	FF SUP = 0.	RCW CP TIME =	4.564	+ CYLN	4Y SIDE 1	0009
791	FF SUF = 0.	RCW OF TIME =	2.952	- CYLN	Y SIDE D	GOR
792	FF SUF = 0.	RCW OF TIME =	6.243	+ CYLN	V SIDE D	C0Q

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED): (R INDICATES FF CALCULATED FROM J TO I)

			V 1	K INCLUATE	S FF CALL	.064168 (1	KOF O IC 1	•		
NODE I	NODE J	CCMPUTATICN	FE (I,J)	FE(J,I) W/SHAD	FA(I.J) W/SHAD	F (I.J) HO/SHAE	SHAD. E Facter	SHAD. A CF FACTOR	TIME (SEC):	
793	FF SUP	= 0.	RCH CP	TIME =	2.427		- CYLN	¥	STDE OCOR	
794	FF SUP =	= '0.	RCW CP	TIPE =	4.665		+ CYLN	••• - Y.	SIDE OCCR	
795	FF SUP =	= 0.	RÇH CP	TIME =	1.223		- CYLN	4	SIDE BCOR	
796	1030	CAL.	.002729	.001236	.002728	.015550	.175458	.175458	3.520 -	
796	1340	CAL.		.026279						
7.9.6	1050	CAL.	.024303	.027893	.024303	.055518	.437747	.437747	13.594 *R	
796	1360	CAL.		.036562					14.019 R	
796	1070	CAL.		.020261					22.137 *	-
796	1001	CAL.		.356299			.741951	.741951	48.297 *R	
796	10.44	CAL.	.014536	.821184	.00453€	.023927	.1895E2		50.310 R	
796	1786	CAL.	.004140		.004140			.192749	52.544 R	
796	FF '50'* =	.1517	RCW CP	TIME =	53.229		+ CYLN	٧	SIDE DCOP	
797	FF SUP =	· 0•	PCH CP	TTME =	1.214		- CYLN	Y	SINE DCOR	
798	4000	CAL.	#27847	.035101	-027810	. 051587	. EZONBC	.539089	1.404 FR	
798	1903 1910	CAL.		.046277				.635452	1.694 R	
798 798	1015	CAL.						.615615	1.975 R	
798		CAL.		.030715					7.560 FR	
	1023		0554413	.023792	9054410				12.114	
798	1939	CAL.		.001920					13.989	
798	1340	CAL.	042240	*********			.560191		15.280 R	
798	1081	CAL.	*01037	* 3 C J I 9 U	1000010	*# 44025	1200121	4566151	13.600 K	
798	FF SUM =	.1512	ROW CF	TIME =	16.476		+ CYLN	Y	SIDE DOOR	
301	FF SUF =	0 •	RCW CP	TIPE =	1.227		+ TRAP	+4 210	E FRONT TRAPOZOID	
305	FF SUF =	: 6 •	RCH CP	TIME =	.847		+ RECT	BCDY SI	DE (MIDDLE-PORT)	309

(* INCICATES NOBE PAIR HAS BEEN SUBCIVIDED) . . (R INCICATES FF CALCULATED FROM J TO 1)

				(19	INCICATE	S FF CALL	ULAIFU F	(LF 3 L 1	,				
NGDE I	NOCE J	cc	MPUTATICN	FEII+J) W/SHAD	FE(J.I) W/SH4D	FA(I,J) W/SHAD	F (I,J) WC/SHAD	SHAD. E FACTER	SHAC. A FACTOR	CP TIME (SEC)1			
306	FF SU#	=	0.	RCW CP	TIME =	.879		+ RECT	80C Y	SIDE (BAC	K-PORT)	,	306
311	1015		CAL.	.010714	.027474	.010714	.045154	.237266	.237268	4.536	₹Ŗ		
311	1030		CAL.	.0(0349	.000197	.000349	.012611	.027685	.027685	8.878	*		
311	FF SUM	=	.0111	RCW CP	TIME =	10.319		- TRAP	-Y :	SIDE FRONT	TRAPOZO	CIC	
315	FF SUP	=	0.	୧୯୫ ୧୧	TIME =	•926		+ RECT	ecov	SIDE (MIC	OLE-STAC	11	315
316	FF SUM	=	0.	RCH CF	TIME =	.940		+ RECT	ECDY	SIDE (BA	CK-S180)		316
								,	nony	100 /610	1_0EAO\	202	
202	FF SUP	=	0.	RCW CP	TIPE =	1.127		• CYLN	eccy	TOP (STR		242	
212	FF SUM	=	0.	RCW TP	TIME =	1.127		+ CYLN	ECOY	TOP (POR	T-REAR)	212	
389	1030		CAL.	.000107	.000056	.000107	.000107	1.00000	1.000000	.937			
380	1040		CAL.	.0(0222	.000117	.00(222	.000222	1.000000					
380	1350		CAL.		.001228		.001168	.787992	.787992		R R		
380	1060		CAL		.000053	.000009	.000030	.296793	.296793	_	Ŗ		
380	1342		CAL.	.0(0935		.00 0035	*#E#269	.129759 .065839	.129759		R		
380	13.74		CAL.	.000079	.000426	.000079	•0(1192	• 0000033	• 6 5 6 5 6 5 7	61134	IX.		
3#0	FF SUM	=	.3314	PCW CF	TIME =	3.229		+ TRAP	VEFT	ICAL FIN	(PORT)	2	Û
385	1930		CAL.	.000062	.000024	.000068	.100062	1.00000	1.000000	.972			
3.65	1040		CAL.	.0(0114	.000044	.000114	.900114	1.000000	1.000000	1.180			
385	1050		CAL.		.000206	.000211	.368624	. 3 37590	.337990	1.455			
385	1362		CAL.	.000007	.000030	.0000007		.572888			R		
395	1165		CPF.	.0003	.000025		.000019	.129746			Ŕ		
385	1088		CAL.	• C C G G G 3	.000090	.0000063	.00091	.032636	.032936	2.398	P.	•	
. 385	FF SUP	7	.6014	PCH CC	TIME =	3.199		• TPAP	VFFT	ICAL FIN	(PORT-AF	T) 2	ŋ
399	1030		CAL.	.000107	.009056	.006197	.000197	1.000000	1.00000	1.031			
359 390	1746		CAL	.010322			.017222	1.00(000	1.000000	1.235			
391	1350		CAL.	.008912	.901225	.036919	- ⊓01165	.707980	. 7 H 7 G F N	1.537	R		

MCDEL = TAFE3 STEP = 1
FORM FACTOR CALCULATION LINK.

(* INDICATES NODE PAIR HAS BEEN SUPCIVIDEC): (R INCICATES FF CALCULATED FROM J TO I)

NODE I NODE J CCHPUTATICN FF(I,J) FE(I,J) FE(I,J) FA(I,J) FA(I,J) FA(I,J) SHAD. E SHAC. A CP TIPE W/SHAD N/SHAD N/SHAD N/SHAD FACTOR FACTOR SECTION N/SHAD N/SHAD N/SHAD FACTOR FACTOR SECTION N/SHAD N/SHAD N/SHAD FACTOR SECTION N/SHAD N/SHAD FACTOR FACTOR SECTION N/SHAD N/SHAD N/SHAD FACTOR FACTOR SECTION N/SHAD N/SHAD N/SHAD FACTOR FACTOR SECTION N/SHAD N/SHAD N/SHAD FACTOR SECTION N/SHAD												
1985	NODE I	NODE J	CCHPUTATICA	FF(I,J) W/SH#D	FE(J.I) H/SHAD	FA(I,J) W/SHAD	F (T.J)	SHAD. E FACTOR	SHAC. A FACTOR	CP TIPE		
1985	301	1060	CAL .	- Prrese	.000052	. na arma	.0.0003.0	. 296727	. 20 6 7 2 7	1.715	R	
390 1785 CAL			-						126735	2.546		•
390 FF SUM = .9014 PCH CP TIME = 3.213 - TPAP VERTICAL FIN (STBC) 26 395 1030 CAL												
395 1030 CAL	9,0	• • • • •	OFL.	V E C (3 / 11		*****						
395 1340 CAL00314 .003044 .000114 .000114 1.000001 1.264 395 1390 CAL003210 .000225 .000210 .000623 .337582 .337582 1.528 395 1360 CAL002077 .000030 .0000077 .000011 .572771 .572771 1.721 R 395 1367 CAL002073 .000025 .003003 .00019 .129745 .129745 1.920 R 395 1383 CAL002073 .000089 .000003 .00019 .129745 .129745 1.920 R 395 1383 CAL002003 .000089 .000003 .00001 .29745 .129745 1.920 R 395 1383 CAL002003 .000089 .000003 .00001	390	FF SUM	= .0014	BCM to 1	TIME =	3.213		- TPAP	VERTI	CAL FIN	(STBD)	20
395 1350 CAL	395	1030	CAL.	.000062	.000024	.000062	.00062	1.089900	1.000000	1.059		
395 1360 CAL	395	1148	CAL.	.060114	.009044	.000114	.000114	1.000000	1.000000	1.264		
395 136F CAL009763 .003025 .030003 .00301 .129745 .120745 1.920 R .395 1783 CAL005003 .005003 .005003 .005003 .005003 .005003 .032933 .032933 2.483 R .395 FF SUM = .0004 RCH CP TIME = 3.145 - TRAP VEPTICAL FIN (STB0-AFT) 20	395	1050	CAL .	. 000219	.000235	.000210	.666623	.337582	.337582	1.528		
395 1787 CALCCGC3 .CGGC89 .GCGC9C .G32933 .D12937 2.483 R 395 FF SUM = .0004 RCM CP TIME = 3.145 - TRAF VEPTICAL FIN (STBC-AFT) 20 705 FF SUM = 0. FCM CP TIME = 1.168 + DISCPOST FORWARD EVAPORATOR. 700 FF SUM = 0. PCM CP TIME = 3.974 - DISCSUPER ENGINS (OMS L 701 FF SUM = 0. RCM CP TIME = 1.146 + DISCSUPER ENGINS (OMS L 702 FF SUM = 0. RCM CP TIME = 3.871 - DISCSUPER ENGINS (OMS L 703 FF SUM = 0. RCM CP TIME = 1.157 + DISCSUPER ENGINS (OMS L	395	1360	CAL.	.00007	.000030						R	
395 1787 CALCCGC3 .CGGC89 .GCGC9C .G32933 .D12937 2.483 R 395 FF SUM = .0004 RCM CP TIME = 3.145 - TRAF VEPTICAL FIN (STBC-AFT) 20 705 FF SUM = 0. FCM CP TIME = 1.168 + DISCPOST FORWARD EVAPORATOR. 700 FF SUM = 0. PCM CP TIME = 3.974 - DISCSUPER ENGINS (OMS L 701 FF SUM = 0. RCM CP TIME = 1.146 + DISCSUPER ENGINS (OMS L 702 FF SUM = 0. RCM CP TIME = 3.871 - DISCSUPER ENGINS (OMS L 703 FF SUM = 0. RCM CP TIME = 1.157 + DISCSUPER ENGINS (OMS L	395					.008803	.000019	.129745	.129745	1.926	R .	
705 FF SUM = 0. FCH CP TIME = 1.168	395	1787	CVF.	.000003	.000089						R	
700 FF SUM = 0. PCM CP TIME = 3.974 - DISCSUPER ENGINS (OMS LSUPER ENGINS (OMS L	395	FF SUM	= .0004	RCW CP T	TTME =	3.145		- TRAP	VEPTI	CAL FIN ((STBC-AFT)) 20
700 FF SUM = 0. PCM CP TIME = 3.974 - DISCSUPER ENGINS COMS L 701 FF SUM = 0. RCM CP TIME = 1.146 + DISCSUPER ENGINS COMS L 702 FF SUM = 0. RCM CP TIME = 3.871 - DISCSUPER ENGINS COMS L 703 FF SUM = 0. RCM CP TIME = 1.157 + DISCSUPER ENGINS COMS L	705	FF SUM	≖ 0•	FCW CP T	TIME =	1.168		• BISC	05	T FORKARI	EVAPORA	TOR
701 FF SUM = 0. RCM CP TIME = 1.146 + DISCSUPER ENGINS (OMS L 702 FF SUM = 0. RCM CP TIME = 3.871 - DISCSUPER ENGINS (OMS L 703 FF SUM = 0. RCM CP TIME = 1.157 + DISCSUPER ENGINS (CMS L								N.				
702 FF SUM = C. RCW CP TIME = 3.871 - DISCSUPER ENGINS COMS L 703 FF SUM = O. RCW CP TIME = 1.157 + DISCSUPER ENGINS COMS L	700	FF SUM	= 0.	PCH (CP T	TPE =	3.974		- BISC	••••	SUPER 6	NGINS (O	HS LCCAT
703 FF SUF = 0. RCW CP TIME = 1.157 + DISCSUPER ENGINS (CMS L	701	FF SUP	= 0.	RCW CP T	IME =	1.146		+ DISC	••••	SUPER E	NGINS (O	MS LCCAT
703 FF SUM = 0. RCW CP TIME = 1.157 + DISCSUPER ENGINS (CMS L	702	FF SUP	= 0.	ROW CP T	I#E =	3.871		- oisc	••••	SUPER E	NGINS (O)	IS LCCAT
			= 0.	RCW CP T	IME =	1.157		+ DISC	••••	SUPER E	NGTAS (C)	AS LCCAT
\$4		mm main	- 0		THE -	4 450		- BISC	,· 0.8.	ev ace	LOOKTHE	V .
25 FF SUM = 0. RCW CF TIME = 3.815 + DISCBACK RCSLOCKING +/-	-											

(* TNCICATES NODE PAIR HAS FEEN SUBCIVICEC): (R INCICATES FF CALCULATED FROM J TC I)

NOOE I	NODE J	COMPUTATIO	ON FE(I,I) FE(J,I) WASHAD TWASHAD	FACE, JE W/SHAD	F (I.J) SHAD. E SHAD. A CP TIME HO/SHAC FACTER FACTOR (SEC):
18	FF SU™	= 0.	RCW CP TIME =	1.165	- DISCFRCNT RCSLOOKING +/-Y AT
19	FF SUR	= 0.	RCW CP TIME =	2.519	+ DISCFRCNT RCSLCOKING +/-Y AT
26	FF SUP	= 0.	RCW CP TIME =	1.335	- DISCBACK PCS LOCKING +/- Z7/
27	FF SUM	= 0.	RCW CP TIME =	3.807	+ DISCBACK RCS LCCKING +/- Z7/
16	FF SUM	= 0.	RCN CP TIME =	3.700	- DISC PICOLE EVAP. LCCKING +/- Y.
17	FF SUP	= 0.	RCW CP TIME =	1.164	+ DISC MIEDLE EVAP. LCCKING +/- Y.
160	FF SUM	= 0.	RCH CP TIME =	16.333	- RECTTHIN STRIP BETWEEN DOORS AN
161 161 161	1939	CAL. CAL. CAL.	-0.0676 -0.0002	.000676	.011248 1.000000 1.000000 1.627 .000678 1.000000 1.000000 3.609 .000112 1.000000 1.000000 4.278
161	" FF SUP	= .0120	RCW CP TIME =	5.716	+ RECTTHIN STRIP BETWEEN OGORS AN
162	FF SUM	= 0.	RCW CP TIME =	14.199	- RECTTHIN STRIP BETWEEN DOORS AN
163 163 163	1020 1030 1140	CAL. GAL. CAL.	.040770 .009134	-04 0770	.014060 1.000000 1.000000
163		= .0579	PCW CP TIME =	8.050	+ RECTTHIN STRIP BETWEEN DOORS AN

MCDEL = TAPE3 STEP = 1 FORM FACTOR CALCULATION LINK.

NODE I	NOTE J	cn	MPUTATICK	FE(I,J) W/SH#D	FF(J,I) W/SHAD	FATI,J) W/SH#O	F (T,J)	SHAD. E FACTER	SHAD. A C FACTOR	(SEC):			
164	FF SUM	<u>*</u>	ð.	RCW CP	TIME =	16.118		- RECT	т н:	IN STRIP	BETHEEN	DOORS	AN
165	1130		CAL.	.0(3609	-000012	.003698	.013698	1.000000	1.000000	4.256	•		
165	1040		CAL.	.041346	.000136	.041346	.04134€	1.066900	1.000000	6.818	*		
165	1955		CAL.	.007475	2000062	.037475	.007475	1.630336	1.000000	8.585	#		
403	• • • • • • • • • • • • • • • • • • • •		OFE.	••	• • • • • • • • • • • • • • • • • • • •								
165	FF SU₽	=	.0525	FCW CP	TIME =	9.475		+ RECT	TH	IN STRIF	BETWEEN	DOORS	AN
166	FF SUP	=	0.	RCH (P	TIME =	18.542		- RECT	TH	IN STRIP	BETHEEN	DCORS	Ah
					0.0000	000440	000446	4 000000	1.000000	3.370			
167	1036		CAL.	.0(0114	•000035	010110	000238	1 000000	1.000000	4.138			
167	1040		CAL.	057030	000007	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	949774	1 000000	1.000000	5.521			
167	1750		CAL.	• 012331	.000103	*016931	*315531	1.00000	14000000	7.762			
167	FF SUM	Ξ	.0132	RCW Cº	TIME =	6.822		+ RECT	TH	IN STRIP	BETWEEN	DCORS	AN
399	1030		CAL.	-011663	.050112	.001440	.001440	1.000000	1.090000	2.521			
368	1040		CAL.	.0(144)	.000173	002218	002218	1.0000000	1.006689	3.175			
399	1359		CAL.	0.00.00	.001644	-00 P325	.000016	.923118	.923118	4.280			
ile (i)	1360		CAL.	710501	.n.C3438	000501	.006591	1.000000	1.000000	4.911			
399	1065		CAL.	_ n () 9 F F	601744	.000865	310865	1.889868	1 000000	5.412	R		
363	1082		CAL.		.00553	011001	.000091	1.000000	1.000003	6.957	R		
399	1084		CAL.	.00397	.001163	-000202	.000202	1.0000000	1.000000	8.056			
399	13 45		TAL.	000002	.000022	.000002	.000002	1.0000000	1.000003	8.604	R		
.022	10												
399	FF SUM	=	.0136	POW CF	TIPE =	8.908		+ RECT	VERT.	FIN LDG	• EDGE	2	
1000	1310		CAL.	. 012041	.003344	.092343	.9(2043	1.008500	1.000000	.117	R		
1000	1015		CAL.	.010569	.000531	.000569	.000569	1.000000	1.000000	.228	R		
1000	1929		CAL.		.007814	-017840	.007849	1.0000000	1.000000	.430			
1989	1171		CAL.	.070915	.FC6592	070935	076935	1.000000	1.000000	67.165	# R		
1305	1114		CAL.	••••	• • • • • • • • • • • • • • • • • • • •	•••					-		
1000	FF SUM	=	.7693	ECM Cu	TIME =	67.707	•	+ CYLN	TUNNI	EL 1, X=1	582 TO 6	72.4,	SPA
1010	1320		CAL.	.018818	.011458	.018818	.31881F	1.0000000	1.090989	. 243		•	•
1010	FF SUM	=	.543R	ФСМ СЪ	TTMF =	2.183		+ CAFP	TUNNI	EL 2, X=(572.4 TO	790.4	, S
1015	1020		CAL.	.169074	.065834	•10P074	.108974	1.000000	1.000000	6.419	*		

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(* INCICATES NOOF PAIR HAS BEEN SUBDIVIDED): IN INCICATES FF CALCULATED FROM J TO I)

			• • •						
NODE I	NODE J	CCMPUTATION	FE(I.J) W/SHAD	FE (J.T) W/SHAD	FA(I,J) W/SHAD	F (I+J) SHAD HOZSHAC FAC	. E SHAD. A TER FACTOR	CP TIME (SEC):	
1015	FF SUE	= 46419	RÓW CP T	TPE =	8.354	. + CYL	N TUN	NEL 2, X=672.4	4 TO 790.4. S
1029	FF SUP	= .6107	RCW CP 1	THE =	2.062	+ CON	E FNO	CCNE. X=790.4	TO 816.1. SP
1200	FF SUP	= .0215	RCH CP 1	TI#E =	1.742	- DIS	c ECS	CCHDENSATE VEI	NT 802.1, SP
1201	1131	CAL	.0128	.000015	.000126	.000387 .333	651 .330651	3.828	
1201	FF SUM	= .0091	ROW OP 1	TIPE =	3.834	+ DIS	C ECS	CCNDENSATE VE	NT 802.1. SP
1030	, FF SUF	= .4967	RCH CP 1	T14E =	1.271	+ CAF	.N	CORE SEGMEN	7 x=816.1 T
1840	1120	CAL.	.001773	.045713	.001770	.001776 1.000		1.508 *R	
1040	FF SUM	= .5973	RCH CP	TIME =	1.691	+ CYI	.N	EXPERIMENT SE	GMENT X=922
1050 1050 1650 1050 1050 1050 1050	1060 1982 1983 1984 1985 1986 1987 1988 1131	GAL. CAL. CAL. CAL. CAL. CAL. CAL. CAL.	.0(9883 .013961 .014991 .011198 .009515 .016876	.017163 .027141 .056807 .060637	.000558 .000883 .013960 .014901 .011198 .019515 .016876	.000883 1.000 .015796 .88 .016132 .92 .012279 .91 .011842 .89 .019765 .85 .00035 1.00	3767 .98678 1964 1.00000 3761 .88378 3765 .92370 1968 .91196 3556 .85365 6000 1.00000	7 9.623 FR 0 10.063 R 1 10.972 R 5 11.650 R 8 12.386 R 6 12.907 R 6 13.697 R	
1050	FF SUM	= .5879	RUM UP	1166 -	144014				
1060 1060 1060 1060 1060 1060 1060	1082 1183 1184 1185 1186 1087 1788 1131	CAL. CAL. CAL. CAL. CAL. CAL.	.00135 .00135 .019222 .019222 .015235 .015158 .025858	.000937 .000937 .017656 .017656 .017657 .017574 .015598	.000135 .019222 .019222 .015230 .015158 .025858	.00135 1.00 .019222 1.00 .019222 1.00 .015230 1.00 .015158 1.00 .025858 1.00	0000 1.00000 0000 1.00000 0000 1.00000 0000 1.00000 0000 1.00000	0	

(* INCICATES NODE PAIR HAS PEEN SUBDIVIDED): IR INCICATES FF CALCULATED FROM J TO I)

			10	CINCICALC	3 FF GPCU	OF PIEG 1	.01 5 10 .			
NODE I	NODE J	COMPUTATION	FE (T, J)	FF(J,I) W/SHAD	FACT,J1 W/SHAD	F (I.J) HC/SHAB	SHAD. E FACTER	SHAD. A FACTOR	CP TIME (SEC):	
1060	FF SUM	= .4874	BCM Cb	TIPE =	31.283		+ CYLN	, AFT	AIRLOCK, X	=1059.3 TO 108
1065	1084	CAL.	.t8142F	.032452	.081426	.081426	1.080000	1.000000	1.046	
1065	1085	CAL.	.081426	.032452	.081426	.CE1426	1.000000	1.000000	1.722	
10€5	19.66	CAL.	.071249	.035842	.071249	.071246	1.000000	1.000000	2.362	
1065	10 67	CAL.		.035842					2.991	
1065	1988	CAL.	.142923	.037393	.142823	.142923	1.000000	1.000000	5.150	
1065	FF SUM	= .7051	RCW CP	TTME =	5.683		+ DISC	AFT	AIRLOCK DI	SC X= 1088.8,
1073	FF SUM	= .9116	RCW CP	TIME =	.980		+ CYLN	PALL	ET BOTTOM C	YLINDER X= 110
1080	FF SUP	= .3096	FCW CP	TIME =	.569		◆ RECT	-Y F	ALLET OUTSI	DE STRIP
10 P1	FF SUM	= .7060	RCW CF	TIFE =	.5,50		+ RECT	+Y	PALLET CUTS	ICE STRIP
			•							
1082	1130	CAL.	.0(0293	.000826	.000293	.000429	.682741	.682741		₹
1082	EE SUM	= .1125	RCW CP	TIPE =	2.230		+ RECT	-Y PA	LLET TOP ST	RIP X=1101.2 T
1083	1130	CAL.	.0(0283	.000797	.000283	.000429	.659053	.659053	2.124	R
1083	1 FF SUM	= .1218	PCW CP	TIPE =	2.184		+ PECT	+ Y P	ALLET TOP S	TRIP .X= 1101.
1084	1985	CAL.	.069759	.069758	.069758	.069758	1.000000	1.00000	.973	
1084	1986	CAL.		·C19867						र र
1084	10.87	CAL.	.055797	.070429 .050292			1.0000000	1.0000000	2.483	
1084 1084	1088 4130	CAL.	.008759 .000382	.008140	.00.382		.692625			R
1004	41.30	UNG	• 0·0 0 0 0 A	# C L D I T U	- U - U - U - U - U - U - U - U - U - U	\$000JJE				
1084	FF SUM	= .6644	RCW CP	TIPE =	3.647		+ RECT	-Y 1	NSIDE TOP P	ANNEL.X=1101.2
1085	1986	CAL.	.055707	.070429	.055797	955797	1.006000	1.600000		R 2
1885	1987	CAL.						1.000000		₹ ,
1685	1368 4476	CAL.	.088759 .050382	.058292 .008125			.691151			₹
1085	1130	CAL.	 € € € 5 7 7 7 	* E L F 165	■ 95 F 10 Z	.0.00002	*031121	94 21121	C = C U E 1	

(* INDICATES NODE PAIR HAS BEEN SUBDIVICED):

IR INCICATES FF	CALCULATED	FROM J	16 1)
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			1.6	INCLUATE	2 LL CHEG	OC-100 1		•		
NODE I	NOCE J	CCMPUTATION	HVSHAD	FE (J.I) W/SHAD	FA(I,J) W/SHAD	F (I,J) WC/SHAC	SHAD. E FACTER	SHAD. A FACTOR	CP TIPE	•
1085	FF SUF	= .5830	ROH CP	TIME =	2.701		• RECT	+ Y 1	INSIDE TOP	PANNEL,X=1101.2
		041	064000	-061770	.061000	.061008	1.000000	1.000000	.352	
1086	1967	CAL.	003268	. በሬጸናጋጸ	.093268	.053268	1.600000	1.000000	10033	
1986	1988	CAL.	0.0106	.001794	.833106	.000205	•210024	• Z T G D S A	6.076.1	R
1086	1130	CAL.	010146	.000274	000016	.000048	.336514	.336514	2.675	R
1086	1131	CAL.								
1086	FF SUM	.6047	RCW CP	TIME =	2.681		+ RECT	-Y	INSIDE BOT	TOM PANNEL, X=11
1087	10.88	. CAL.	.093268	.048528	.093268	.093268	1.000000	1.000000	1.074	Ŕ
1087	1130	CAL.	.000175	.0012F0	.00 C 0 7 5	.000205	.364571	.3845/1	2.199	к
1087		5693		TIME =		*				TOM PANNEL + X 110
1088	FF SUP	i = +4949	RCW CP	TIME =	1.196		◆ RECT	FBL	LET BOTTON	,x= 1191.2 TO 12
1100	FF SUI	ν = 0 .	RCW CP	TIME =	.022		- DISC	TUN	NEL EVA HI	TCH X=627. ₀SPACE
1101	FF SU	× = .6906	RCW CP	TIME =	.022		+ DISC	TUN	INEL EVA +	ATCH X=627. SPACE
1110	FF SU	y = 0.	RCW CP	TIME =	.021		- nisc	CCR	E SEGHENT	WINDOW, X=869. S
1111	FF SU	r = 0.	RCW CP	TIME =	.055		+ DISC	CCF	RE SEGMENT	WINCOW, X=869. S
1120	FF SU	r = .0457	RCW CP	TIPE =	.025		- DISC	ŧ	EXPERIMENT	SEGIMENT WINDOW,
1121	FF SU	r = 0.	RCW CP	TIME =	.023		+ DISC	•	EXPERIMENT	SEGIMENT HINDOW.

MCDEL = TAFE3 STEP = 1
FORM FACTOR CALCULATION LINK.

SHUTTLE CONTAMINATION STUDY (SPACE LAB1 (RECIEVING SHUTTLE))

(* INDICATES NODE PAIR HAS BEEN SUBDIVICED): (R INDICATES OF CALCULATED FROM J TO I)

NODE I NODE J COMPUTATION FE(I,J) FF(J,I) FA(I,J) F (I,J) SHAD. E SHAD. A CP TIME
W/SHAD W/SHAD W/SHAD W/SHAD FACTOR (SEC):

1130 FF SUP = .0209 RCH CP TIME = .045 . - DISC AFT AIRLOCK WINDOW X=1043.6.

1131 FF SUM = .0045 9CH CP TIME = .024 + DISC AFT AIRLOCK WINDOW X=1043.6.

TOTAL OF TIME (SEC) FOR PROBLEM = 1078.201

FF SUM =

1110

1111

1123

1121

1130

21

21

21

21

21

.0010

CAL.

CAL.

CAL.

CAL.

CAL.

Ĺ	•
ţ	×

145	FF SUM	= 0.	ROW CP	TIPE =	.795	•	TRAP	+Y RI	EAR SIDE	TAPER	•
146	FF SUM	= 0.	ROW CP	TIME =	.803	-	TRAP	- Y.	REAR SI	DE TAPER	
707	FF SUN	= 0.	RCW CP	TIME =	1.451		OISC	••••	.JULY 8	EVAP3	IN. RAD.
.708	FF SUN	= 0.	ROW CP	TIME =	.679	•	DI SC	••••	.JULY 8	EVAP3	IN. RAD.
147	FF SUM	= 0.	RON CP	TIME =	2.201	•	PARAE	TOP	ENGIN		• ,
148	FF SUN	± . 0.	RCH CP	TIME =	1.549	•	PARAB	* Y	ENGIN		
149	FF SUM	= 0.	ROW CP	TIME =	1.557	•	PARAS:	-Y E	NGIN		
~.			4	* INDICA R INDICA	ATES NODE PA ATES FF CALC	IR HAS BEEN ULATED FROM	N SUBDIN	/10E0) #			
NOGE I	NODE J	COMPUTATION	FE(I,J) W/SHAD	FE(J+	I) FA(I,J) AD W/SHAD	F (I,J) S WO/SHAD	SHAD. E Factor	SHAD. A Factor	CP TIME (SEC):	•	•
						.060057 .	177066	. 137066	1.416	s R	
20	1110	CAL.	.000008	.0000	24 .070008 96 .000032		. 500000	1.000000			
20	1111	CAL.	0.00332	.0000 .0001	50 .000083		380890	.380890	2.002		
23	1120	CAL.							2.229		
20	1121	CAL.	.000127			.003779 1	.000000	1.000000	2.709		
20	1130	CAL.	.000779	.0142	4T *400113						

2.771

.0(0127 .000228 .030127 .000127 1.000000 1.000000 .000779 .014941 .000779 .800779 1.000000 1.000000

ROW CP TIME =

.0(0008 .000024

.000032 .000096

.000083 .000150

+ DISC

.000008 .000057 .137966 .137966 .000032 .000032 1.000000 1.000000

.000083 .000219 .380890 .380890

...-Y ONS SEALER ...

1.397

1.632

1.976

2.199

2.682

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED): (R INDICATES FF CALCULATED FROM J TO I)

				• •	. 1110104.1			
NODE I	NODE	J	COMPUTAT	TION FETT, J) W/SHAO	FE (J.I)	FACI.J) W/SHAD	F (I,J) SHAD. E WO/SHAD FACTER	SHAD. A CP TIME FACTOR (SEC):
21	FF	SUM	= .801	LO RON CP	TIME =	2.767	+ DISC	+Y ONS SEALER
. 222	FF	SUM	= 0.	RON CP	TIME =	.585	- RECT	BACK RECT 7.35DEG
23	FF	SUN	= 0.		TIME =	.653	+ DISC	REAR END HALF DISK
407	FF	SUM	= 0.	RON CP	TIME =	.673	• DISC	BACK SIDE EVAPORAT, UPDATED
15	FF	SUH	= 0.	ROW CP	TIME =	.671	+ oisc	REAR END EVAPORATOR
10	FF	SUM	= 0.	RON CP	ŤIHE '=	1.681	- TRAP	LEFT FRONT HING A
11	FF	SUN	= 0.	. ROW CP	TIME =	1.535	+ TRAP	LEFT MIDDLE WING BACK-B
141	FF	SUH	* 'Q.	ROW CP	TIME =	1.397	+ RECT	BS INNER WING
12	. FF	Sษพ	≖ Q•	* ROW CP	TIME =	1.414	+ RECT	LEFT BACK RECT. WING C
142	FF.	.SUH	= 10.	ROW CP	TIME = ·	1.337	• RECT	INNER WING C
13	FF	SUK	= O.	ROW CP	TIME =	1.465	+ TRAP	LEFT WING TAIL EDGE
1	FF	.SUH	= 0.	ROW CP	TIME =	1.661	+ TRAP	FRONT WING TRIANGLE RT.A.58

156

1201

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED):

		(R INDICATES	S FF CALC	LATED FROM J TO I	·
NOŌE I	NODE J COMPUTATI	ON FE(I,J) FE(J,I) W/SHAD W/SHAD	FA(I,J) W/SHAD	F (I.J) SHAD. E WO/SHAD FACTER	SHAD. A CP TIME FACTOR (SEC)*
2	FF SUM = 0.	ROH CP TIME =	1.561	- TRAP	MIDDLE WING TRAP, RT B
143	FF SUM = 0.	ROW CP TIME =	1.419	- RECT	B +Y RECTANGLE WING
3	FF SUM = 0.	ROW CP TIME =	1.405	- RECT	BACK HING RECT. RTC .129
144	FF SUM = 0.	ROW CP TIME =	1.353	- RECT	INNER WING C RECT
4	FF SUM = 0.	ROW CP TIME =	1.501	- TRAP	WING TAIL FLAP RT 1453,1507
150	FF SUM = 0.	ROW CP TIME =	2.580	- CYLN:	BAY AREA CYLINDER
151	FF SUM = 0.	ROW CP TIME =	7.285	- CYLN	BAY AREA CYLINDER
152	1201 CAL.	.000013 .013283	.000013	.000255 .052189	.052189 3.361 R
152	FF SUM # .000	G ROW OP TIME =	8.224	- CYLN	BAY AREA CYLINDER
153 153 153	1201 CAL.	.000013 .012985	_000013	.000042 .306986 .024136 .136833	.136833 4.247 K
153	FF SUM = .003	ROW CP TIME =	5.563	- CYLN	BAY AREA CYLINDER
154	FF SUM = 0.	ROW CP TIME =	2.609	- CYLN	BAY AREA CYLINDER
1 5 5	FF SUN = 0.	ROW CP TIME =	7.529	- CYLN	BAY AREA CYLINDER
156	1201 CAL.	.080013 .013283	.000013	.000255 .052189	.052189 3.333 R

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) : (R INDICATES FF CALCULATED FROM J TO I)

			• •				-			
NODE I	NODE J	COMPUTATION	FE(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SHAD	F (I,J) HO/SHAD	SHAD. E Facter	SHAD. A Factor	CP TIME (SEC):	
156	FF SUM	= •00000	ROW CP	TIME =	8.243		- CYLN	BAY A	REA CYLINDER	
157	1200	CAL.	.060000	.000332	.000000	.060000	1.000000	1.000008	.197 R	!
157	1201	CAL.	.0 (0013	.012985	.000013	.000042	.306986	.306986	.613 R	
157	1101	CAL.	.0 C3465	.049485	.00 3465	.024136	.143576	-143576	4.434 R	
157	FF SUM	= .0035	ROW CP	TIME =	5.790		- CYLN	. BAY A	REA CYLINDER	:
143	1130	CAL.	.0.00693	.116549	.00 0690	.000690	1.000060	1.000000	3.972 R	!
145	FF .SUH	= .0007	RCW CP	TIME =	4.039		• DISC	ENC	BAY AREA D	ISK
135		CAL.	.00034	.039426	-000034	.000037	.913602	.913602	340 R	
135	11.00	CAL.	.017353	.288864	.017353	.017353		1.000000		
135	1101	CAL.	.001137	.618930	.001137	.008102	.140363	.140363	2.800 R	
135	FF SUM	≈ .0185	ROH CP	TIME =	13-937		+ DISC	FRON	IT BAY AREA D	ISK
122	FF SUM	≖ 0.	RCH CP	TIME =	.830		+ PARAB	VER 1	NOSE CONE	
123	FF SUM	= 0.	ROW CP	TIME =	.629		+ PARAB	VERY	NOSE CONE	
124	FF SUM	= 0.	ROW CP	TIME =	.825		+ PARAB	VERY	NOSE CONE	
125	FF SUM	= 0.	ROW CP	TIME =	.629		+ PARAB	VERY	NOSE CONE	
320	FF SUN	= 0.	ROW CP	TIME =	•560		+ GYLN	NO	SE CYLINDER	
321	FF SUH	= 0.	ROH CP	TIME =	.556		+ CYLN	NO	SE CYLINDER	

MODEL = TAPE3 STEP = 1 FORM FACTOR CALCULATION LINK.

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) 4 (R INDICATES FF CALCULATED FROM J TO I)

NODE I	NODE J	COMPUTATION	FE(I,J) W/SHAD	FE(J.I) W/SHAD	FA(I,J) W/SHAD	F (I,J) SHAO. E NO/SHAD FACTER	SHAD. A CP TIME FACTOR (SEC):
322	FF SUM	= 0.	ROW CP	TIME =	.568	+ CYLN	NOSE CYLINDER
323	FF SUM		RCW CP	TIME = .	•552	+ CYLN	NOSE CYLINDER
324	FF SUM	•		TIME =	.552	+ CYLN	NOSE CYLINDER
325	FF SUM	= 0.	RCW CP	TIME =	.554	+ CYLN	NOSE CYLINDER
326	FF SUM	= 0.	ROW CP	TIME =	•552	+ CYLN	NOSE CYLINDER
327	FF SUM	= 0.	ROW CP	YIME =	. 548	. + CYLN	NOSE CYLINDER
328	FF SUM	= 0.	RCH CP	TIME =	.840	+ CYLN	NOSE CYLINDER
. 329	FF SUM	! = 0.	RCW CP	TIME =	.838	+ CYLN	NOSE CYLINDER
330	FF SUM	1 = 0.	RON CP	TIME =	.836	+ CYŁN	NOSE CYLINDER
331	FF SU	f = 0.	RCW CP	TIME = '	.842	+ CYLN	NOSE CYLINDER
332	FF SUP	t = D.	POW CP	TIME =	.834	+ CYLN	NOSE CYLINDER
333	FF SU	f = 0.	ROW CP	TIME =	.832	+ CYLN	NOSE CYLINDER

MODEL = TAPE3 STEP = 1
FORM FACTOR CALCULATION LINK.

(* INDICATES NODE PAIR HAS BEEN SUBDIVICED):

(R INDICATES FF CALCULATED FROM J TO I)

		(6 INDIONIE	3 17 07600	SEATES THOM S IS I	•
NODE I	NOBE J COMPUTATION	FE(I,J) FE(J,I) W/SHAD W/SHAD	FA(I,J) W/SHAD		SHAD. A CP TIME FACTOR (SEC):
334	FF SUM = 0.	ROW CP TIME =	.857	+ CYLN	NOSE CYLINDER
335	FF SUM = C.	ROW CP TIME =	.824	+ CYLN	NOSE CYLINDER
340	FF SUM = 0.	RCW CP TIME =	.823	+ PARAB	HOOD PARTIAL BACK
341	FF SUM = 0.	ROW CP TIME =	.825	PARAB	HOCD PARTIAL BACK
342	FF SUM = 0.	ROW CP TIME =	.820	+ PARAB	HOOD PARTIAL BACK
343	FF SUM = 0.	ROW CP TIME =	-822	+ PARAB	HOCD PARTIAL BACK
344	FF SUM = 0.	ROW CP TIME =	.822	+ PARAB	HOCO PARTIAL BACK,
345	FF SUM = 0.	RCW CP TIME =	.829	+ PARAB	HOOD PARTIAL BACK
346	FF SUM = 0.	RCH CP TIME =	.825	+ PARAB	HOCU PARTIAL BACK
347	FF SUM = 0.	RCW CP TIME =	.822	+ PARAB	HOCD PARTIAL BACK
348	FF SUM = 0.	ROW CP TIME =	.816	+ PARAB	HOOD PARTIAL BACK
349	FF SUH = 0.	POW OP TIME =	.822	+ PARAB	HOCD PARTIAL BACK

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED):

(R INDICATES FF CALCULATED FROM J TC I)

NODE I	NODE J	COMPUTATION	FE(I,J) W/SHAO	FE(J.I) W/SHAD	FACI,J) W/SHAD	F (I,J) SHAD, E WO/SHAD FACTER	SHAD. A CP TIME FACTOR (SEC):
350	FF SUM	= 0.	ROW CP	TIME =	-845	+ PARAB	HOOD PARTIAL BACK
351	FF SUM	= 0.	ROH CP	TIME =	-818	+ PARAB	HOOD PARTIAL BACK
352	FF SUM	. = 0.	RCW CP	TIME =	.816	+ PARAB	HOCO PARTIAL BACK
353	FF SUM	. = 0.	ROH CP	TIME =	.817	•	HOCO PARTIAL BACK
354	FF SUM	! = Û•	ŘCH CP	TIME =	.814		HOOD PARTIAL BACK
355	FF SUM	l = 0•	ROW CP	TIME =	.815	+ PARAS	HOCD PARTIAL BACK
360	FF SUM	t = 0.	ROW GP	TIME =	.891	+ PARAS	NINOON
361	FF SUM	1 = 0.	ROW CP	TIME =	-805	+ PARAB	WINDOW .
362	FF SUN	1 = 0.	ROW CP	TIME =	.813	+ PARAB	HINDON
363	FF SUM	(= 0.	ROW CP	TIME =	.816	+ PARAB	HINDON
364	FF SUM	1 = C.	RON CP	TIME =	.800	+ PARAB	HINDON
365	FF SUM	· · · · ·	ROW CP	TIME =	.796	+ PARAB	HINDCH

MODEL = TAPE3 STEP = 1 FORM FACTOR CALCULATION LINK.

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED)* (R INDICATES FF CALCULATED FROM J TO I)

NODE I	NODE J	COMPUTATION	FE(I;J) FE(H/SHAD W/	J.I) FA(I.J) SHAD W/SHAD	F (I.J) SHAD. E WO/SHAC FACTER	SHAD. A CP TIME FACTOR (SEC)	
366	FF SUM	= C •	ROW CP TIME	= .835	+ PARAB	MINDCM	
367	FF SUM	= O.	ROW CP TIME	= .618	+ PARAB	MINDOM	
364	FF SUM	= C.	ROW CP TIME		+ PARAB	HINDOW	
369	FF SUP	= 0.	RCW CP TIME	= .800	+ PARAE	HINDCH	
370	FF SUM	= 0.	· ROH CP TIME	= .811	► PARAB	HINDCH	
371	FF SUM	= 0.	RCH CP TIME	= .811	+ PARAB	HINDOH	
372	FF SUM	= 0.	ROW CP TIME	- .795	+ PARAB	HINDCH	
3 73	FF SUM	= 0.	ROW OP TIME	791	+ PARAB	HINDOH	
374	FF SUM	= 0.	ROW CP TIME	= .800	+ PARAB	WINDOW	
375	FF SUM	= 0.	RON CP TIME	= .812	+ PARAB	HINDOM	
401	FF SUM	= C.	ROW CP TIME	± .589	- RECT	BODY BOTTOM (FRT)	4 1
402	FF SUM	= C.	ROW OF TIME	= .536	- RECT	BOCY BOTTOM (FEAR)	402

(* INDICATES NOCE PAIR HAS BEEN SUBDIVIDED) *

			(R INDICAT	ES FF CALC	CULATED FROM J TO 1	[)	
NOŌE I	NODE J	COMPUTATION	FE(I,J) FE(J,I) W/SHAD W/SHAD	FA(I,J) W/SHAD	F (I.J) SHAD. E WO/SHAD FACTER	SHAD. A CP TIME FACTOR (SEC):	
182	FF SUM	= 0.	ROW CP TIME =	.737	+ CYLN	OMSPOOC1	
172	1121	CAL.	.00000 .000001	.000000	.000000 1.000000	1.000000 .656	R
172	· FF SUM	0000 =	ROW CP TIME =	.779	+ CYLN	OMSPODC2	
781	FF SUP	· = 0.	RCH CP TIME =	.709		+Y SIDE C	000R
782	FF SUP	1 = 0.	ROW CP TIME =	2.422	+ CYLN	+Y SIDE 0)00R
763	FF SU	1 = 0.	ROW CP TIME =	•695	- CYLN "	+Y SIDE ()00R
784	FF SUI	1 = 0.	ROW CP TIME =	2.206	+ CYLN	+Y SIDE (000R • • • •
769	FF SU	1 = 0.	ROW CP TIME =	2.090	- CYŁN	+Y SIDE (000R
786	FF SUI	4 = 0.	ROW CP TIME =	.847	+ CYLN	+Y SIDE	000R
7 67	FF SUI	× = 0•	RCW CP TIME =	1.801	- CYLN	Y SIDE	DOOR
76	FF SU	H = 0.	ROW CP TIME =	.613	+ CYLN	+Y SIDE	BOOR
79:	FF SU	M = 0.	RCH CP TIME =	2.117	- CYLN	¥ SIDE 0	COR
		•		256		LW STRE N	000

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(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED): (R INDICATES FF CALCULATED FROM J TO I)

		,			·-	
NODE I	NODE J COMPUTATION	N FE(I,J) FE(J,I) W/SHAD W/SHAD	FACI.J) W/SHAD	F (I,J) SHAD. E NO/SHAD FACTER	SHAD. A CP TIME FACTOR (SEC)1	
793	FF SUM = 0.	ROW CP TIME =	1.813	- CYLN	Y SIDE DOOR	
794	FF SUN = 0.	ROW CP TIME =	824	+ CYLN	Y SIDE DOOR	
795	FF SUM = 0.	ROW CP TIME =	.688	- CALM	Y SIDE DOOR	
796	1130 CAL.	.000096 .011941	.000096	.000119 .802736	.802736 2.570 R	
796	FF SUM = .0001	RCH CP TIME =	2.854	+ CYLN	··· -Y SIDE DODR····	
797	FF SUM = 0.	ROW CP TIME =	•692	- CYEN	Y SIDE DCOR	
798	1200 CAL.	.000001 .001250	.000001	.000002 .885621	.885621 .197 R	
798 798	1201 CAL. 1101 CAL.	.000018 .015160 .001248 .015334		.000050 .355953 .003484 .358130		•
798	FF SUM = .0013	ROW CP TIME =	2.293	+ CYLN	Y SIDE DOOR	
301	FF SUP = 0.	ROW CP TIME =	.681	+ TRAP	+Y SIDE FRONT TRAPOZOIE)
305	FF SUH = C.	ROW CP TIME =	.490	· + RECT	EOCY SIDE IMICOLE-PORTS	305
306	FF SUM = C.	ROW CP TIME =	.488	+ REGT	BODY SIDE (BACK-PORT)	306
311	FF SUM = 0.	ROW CP TIME =	1.789	- TRAP	-Y SIDE FRONT TRAPOZOIO	1
315	FF SUM = 0.	ROW CP TIME =	.538	+ RECT	BCDY SIDE (MIGOLE-STBO)	. 31 5

MODEL = TAPE3 STEP = 1
FORM FACTOR CALCULATION LINK.

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) (* INDICATES FF CALCULATED FROM J TO I)

						· ·
NODE I	NODE J COMPUTATION	FE(I,J) FE(J,I) H/SHAD W/SHAD	FA(I,J) F (W/SHAD WO/	I.J) SHAD. E Shad facter	SHAD. A CP TIME FACTOR (SEC):	
316	FF SUM = 0.	ROW CP TIME =	.560 ,	+ RECT	BOOY SIDE (BACK-STBD)	316
202	FF SUM = 0.	ROW CP TIME =	.613	+ CAFM	BODY TOP (STRD-REAR)	202
212	FF SUM = 0. :	ROW CP TIME =		+ CYLN	BODY TOP (PORT-REAR)	212
360	FF SUM = 0.	ROW CP TIME =	1.461	+ TRAP	VERTICAL FIN (PORT)	20
365	FF SUM ≠ 0.	ROW CP TIME =	1.528	+ TRAP	VERTICAL FIN (PORT-AF	T) 20
390	FF SUM = 0.	ROW OF TIME =	1.372	- TRAP	VERTICAL FIN (STBO)	20
395	FF SUM = Q.	ROW CP TIME =	1.423	- TRAP	VERTICAL FIN (STBD-AF	T) 20
705	FF SUM = 0.	ROW CP TIME =	•654	+ DISC	HOST FORWARD EVAPOR	RATOR
709	FF SUM # 0.	ROW CP TIME =	1.563	- DISC	SUPER ENGINS	OMS LOCAT
701	FF SUM = 0.	ROW CP TIME =	.657	+ DISC	SUPER ENGINS	COMS LOCAT
702	FF SUM = 0.	ROW CP TIPE =	1.579	- DISC	SUPER ENGINS	(OHS_LOCAT
703	FF SUM = 0.	POW CP TIME =	.654	+ DISC	SUPER ENGINS	COMS LOCAT

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED): (R INDICATES FF CALCULATED FROM J TO I)

NODE I	NODE J	COMPUTATION	FE(I,J) DAHZ\W	FE(J.I) W/SHAD	FA(I,J) W/SHAD	F (I,J) WO/SHAC	SHAD. E Facter	SHAD. A CP FACTOR (S	TIME SEC):			
24	FF SUM	= 0.	RCW CP	TIME =	•682		- DISC	BACK	RCS .	LOOKING	5 +/- Y	1. (
25	FF SUM	= 0.	ROW CP	TIME =	1.486		+ DISC	BACK	RCS .	LOOKING	5 +/- 1	1.(
18	FF SUM	= 0.		TIME =	. 634	,	- orsc	FRCN	rcs.	.LOOKING	+/-¥ /	4 T
19	FF SUM	= 0.	RCH CP	TIME =	1.460		+ DISC	•••FRCN	r RCS.	.LOOKING	+/-4	AT
26	FF SUM	= 0.	RON CP	TIME =	1.579		- DISC	BACK	RCS L	COKING +/	f- Z	.7/
27	FF SUM	= 0.	ROW CP	TIHE =	.646		+ DISC	•••BACK	RCS L	COKING +	/- Z	.7/
16	FF SUM	= 0.	ROW CP	TIPE =	1.514		- DISC	HIDD	LE EVA	P. LOOKĮ	NG +/-	٧.
17	FF SUM	= 0.	ROW CP	TIME =	.646		+ DISC	HIODI	LE EVAI	P. LOOKI	4G +/-	Y.
160	FF SUH	= 0.	ROW CP	TIME =	1.781		- RECT	THIN	STRIP	BETWEEN	DOORS	AN
161 161 161 161	1200 1201 1100 1101	CAL. CAL. CAL. CAL.	.000000	.000002	.000000 .000006	.000000	1.000000	1.000000	1.322 1.599 1.901 2.290			
161	FF SUM			TIME =	6.890		+ RECT		STRIP	BETHEEN	DOORS	AN
162	FF SUM	= 0.	ROH CP	TIHE =	1.771		- RECT	THIN	STRIP	BETHEEN	DOORS	AN
163	1201	CAL.	.000013	.000064	.000013	.000067	.199986	.199986	1.354	R		

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(* INDICATES NOOE PAIR HAS BEEN SUBDIVIDED) : IR INDICATES FF CALCULATED FROM J TO I)

			•					· -				
NOOE I	NODE J	COMPUTA	TICN FE(I.J) W/SHAD	FE(J.T) W/SHAD	FACI, J) W/SHAD	F (I,J) WO/SHAD	SHAD. E FACTER	SHAD. A CP FACTOR (TIME SEC):			
163	FF SUM	= .001	O ROW CP	TIME =	6.098		• RECT	THIN	STRIP	BETWEEN	DOORS	AN
164	FF SUM	= 0.	ROW CP	TIME =	1.762		- RECT	THIN	STRIP	BETWEEN	DOORS	AN
165 165	11 30 11 31	CAL.	.000024	.000022	.000024	.000024	1.080000	1.000000	5.066 6.147	·		
165	FF SUM	= .00	DO RON CP	TIME =	6.153		+ PECT	THIN	STRIP	BETKÉEN	000RS	AN
166	FF SUM	= 0.	RON CP	TIME =	1-846		- REGT	THIN	STRIP	BETHEEN	DOORS	AN
167	1130	CAL.	.000222	.000201	.000222	.000222	1.000000	1.000000	7.725			
167	FF SUM	= .00	02 ROW CP	TIME =	7.886		+ RECT	THIN	STRIP	BETHEEN	DOORS	AN
399 399 399 399	1100 1111 1121 1130	CAL. CAL. CAL.	.000157 .000461	.000536	.000157	.0C0157	1.000000		1.285 2.644 3.488 4.254	R R		
399	FF SUM	= .00	OS ROW CP	TIME =	4.321		• RECT	VERT. F	IN LDG	. EDGE	2	
1003	1101	CAL.	.070935	.690592	.070935	.070935	1.000060	1.000000	65.246	#R		
1000	FF SUM	= .07	09 RON CP	TIME =	65.788		+ CYLN	TUNNEL	1, X=	582 TO 6	72.4.	SPA
1010	1200	CAL.	.00009	.003670,	.000009	.000009	1.000000	1.000000	.162	R .		
1010	FF SUM	= .00	00 ROW CP	TIME =	•909		+ CYLN	TUNNEL	5	672 . 4 TO	790.4	, S
1015	1201	CAĻ.	.000046	.019146	.000046	.000046	1.060000	1.000000	.293	R		
1015	FF SUM	=, .00	00 ROW CF	TIME =	.988		+ CYEN	TUNNEL	2 • X=	672.4 TO	790.4	, S
1020 1026	1200 ,1201	CAL. Cal _i .		.074433	.000109 .000224	.000109	1.000000 1.000000	1.000000	.708 1.828	*R *R		

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(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED): (R INDICATES FF CALCULATED FROM J TO I)

				,				
NODE 1	NODE J CO	OMPUTATION	FE(I.J) N/SHAD	FE(J+I) H/SHAD	FA(I,J) W/SHAD	F {I,J}	SHAD. E Facter	SHAD. A CP TIME FACTOR (SEC):
1020	FF SUM =	.0003	ROW CP	TIME =	2.727		+ CONE	FWD GONE. X=798.4 TO 816.1. SP
1200	FF SUM =	•1195	RCH CP	TIME =	1.543		- DISC	ECS CONDENSATE VENT 802.1. SP
1201	FF SUM =	.2403	RON CP	TIME =	3.799		+ DISC	ECS CCNDENSATE VENT 802.1, SP
1030	FF SUM =	0 -	ROW CP	TIME =	.574	,	+ CYLN	CORE SEGMENT X=816.1 Y
1040	1120	CAL.	.001770	.045713	.001770	.001770	1.060000	1.000000 .860 *R
1040	FF SUM =	.0018	- ROW CP	TIME =	1.042		+ CYLN	EXPERIMENT SEGMENT X=922
1050	FF SUM =	0.	ROW CP	TIME =	•639		+ CONE	AFT CONE TAPER, X=1027.9 TO
1860	1130	CAL.	.000371	.009085	.000371	.000371	1.000000	1.090000 .672 R
1069	FF SUM =	.0004	ROW CP	TIME =	.991		+ CYLN	AFT AIRLOCK, X=1059.3 TO 108
1065	FF SUM =	0.	RON CP	TIME =	.554		+ DISC	AFT AIRLCCK DISC X= 1086.8.
1070	FF SUM =	0.	ROH CP	TIME =	.547		+ CYLN	PALLET BOTTOM CYLINDER X= 110
1060	FF SUM =	.0 •	ROM CP	TIME =	.351		+ RECT	-Y PALLET OUTSIDE STRIP
1081	FF SUM =	0.	ROW CP	TIME =	.350		+ RECT	+Y PALLET OUTSIDE STRIP
1082	.1130	CAL.	-000448	.001583	.007448	.000448	1.000000	1.000000 1.970 R

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) * (R INCICATES FF CALCULATED FROM J TC I)

			(K INDIGATE	3 FF CALC	OFHIED IV		•
нойЕ І	NODE J C	OMPUTATION	FE(I,J) FE(J,I) W/SHAD W/SHAD	FA(I,J) W/SHAD	F (T,J) WO/SHAD	SHAD. E FACTER	SHAD. A CP TIME FACTOR (SEC)1
1082	FF SUM =	. 0004	ROW CP TIME =	2.952		+ RECT	-Y PALLET TOP STRIP X=1101.2 T
1083	1130	CAL.	.000448 .001583	.000448	.000448	1.050006	1.000000 1.963 R
1083	FF SUM :	.0004	RON CP TIME =	2.021		+ RECT	+Y PALLET TOP STRIP .X= 1101.
1084	1130	CAL.	.000667 .017811	.000667	.000667	1.900000	1.000000 1.120 R
1084	FF SUM :	0007	ROW CP TIME =	1.169		+ RECT	-Y INSIDE TOP PANNEL, X=1101.2
1085	11 30	CAL.	.000668 .017814	.000668	.000668	1.000000	1.000000 1.128 R
1085	FF SUM :	3037	ROW OF TIME =	1.176		+ RECT	+Y INSIDE TOP PANNEL,X=1101.2
1086	1130	GAL.	.000210 .004434	.000210	.000369	.568863	.568863 1.197 R
1086	FF SUM	0092	ROW CP TIME =	1.259		• RECT-	-Y INSIDE BOTTOM PANNEL, X=11
1087	1130	CAL .	.0(0177 .003752	.000177	.000369	.481220	.401220 1.192 R
1087	FF SUM	2000.	ROW CP TIME =	1.245		+ RECT	+Y INSIDE BOTTOM PANNEL.X 110
1088	FF SUM	= 0 •.	ROW CP TIME =	1.180		+ RECT	PALLET BOTTOM, X= 1101.2 TO 12
1100	FF SUM	= .2889	ROW CP TIME =	.470		- 01SC	TUNNEL EVA HATCH X=627. SPACE
1191	FF SUN	= .8215	ROW CP TIME =	.966		+ DISC	TUNNEL EVA HATCH X=627. SPACE
1110	FF SUM	= .0000	ROW CP TIME =	.508		- DISC	CORE SEGMENT WINDOW, X=869. S
1111	FF SUN	= .0007	ROW CP TIME =	.270		+ DISC	CORE SEGMENT WINDOW, X=869. S

MODEL = TAPE3 STEP = 1 FORM FACTOR CALCULATION LINK.

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) (* INDICATES FF CALCULATED FROM J TO I)

NOOE I	NODE J CO	MPUTATION	FE(I,J) W/SHAD	FE(J.I) W/SHAD	FA(I,J) H/SHAD	F (I,J) WOAHS\OW	SHAD. E FACTER	SHAD. A CP TIME FACTOR (SEC)#
1120	FF SUM =	.0460	ROW CP	TIME =	•437	-	- DISC	EXPERIMENT SEGIMENT WINDOW.
1121	FF SUM =	.0014	ROW CP	TIME =	.152	•	DISC	EXPERIMENT SEGIMENT WINDOW.
1130	FF SUH =	.2187	ROW CP	TIME =	•085	-	- DISC	AFT VIEHING WINDOW X=1843.6.
1131	FF SUH =	.0000	ROW CP	TIME =	.021	•	OISC	AFT WIEWING WINDOW X=1043.6.

TOTAL CP TIME (SEC) FOR PROBLEM = 318.057

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SPACELAB-1 GEOMETRIC RELATIONSHIP DATA MATRIX

The following pages contain the geometric relationship data computer printouts for the Spacelab-1/Orbiter configuration.

MCDEL = TAPE3 STEP = 1
PROCESSING OPERATIONS DATA

SHUTTLE CONTAMINATION STUDY (SPACE LAB! (RECIEVING SHUTTLE))

KCDE I	NODE J	F(I,J)	AREA	THETI	LT3HT	PADIUS	NCR	HAL VECTOR	I	POSI	TICH VECTO	R I	
						•					•		
							•						
							3 34F-A7	•	1.44E-08	-4.70E+02	_0.546404	8.C0E+01	
20	1030	•992388	3.71E+03	25.67		4.44844E+02	3.71E+03	0.	1.44E-08	-4.70E+02		8.072+01	
5.0	1040	.005851	3.71E+03	33.15	119.83	3.523926+02	3.71E+03	0.	1.446-08	-4.70E+02		8.CUE+01	•
20	1050	.052526	3.716+03	36.84	66.61	2.81665E+02	3.71E+03 3.71E+03	3.	1.446-08	-4.70E+02		8.00E+51	
20	1060	.063193	3.71E+03	36.51		2.43793E+02		0.	1.448-08	-4.70E+02		8.0CE+01	
20	1(65	•46966	3.715+03	36.30	26.53	2.24825E+02	3.71E+03	0.	1.44E-08	-4.70E+02		6.0CE+01	
20	1681	.003709	3.71E+03	33.81		1.345ECF+02	3.71E+03	7 7	1.44E-08	-4.7GE+J2		8.006+01	
20	1082	-000747	3.71E+03	58.64		2.14848E+02	3.71E+03		1.44E-08	-4.70E+92		8.00E+01	
50	1083	.005846	3.71E+03	31.63		1.313.7E+02	3.716+03	0.		-4.735+32		8.00E+01	
20	1084	.015514	3.71E+83	58.65		2.14693E+02	3.71E+03	0.	1.446-05	-4.7GE+32		8.005+61	
20	1585	.003710	3.71E+03	39.5R		1.45062E+02	3.71E+93	J.	1.44E-08	-4.70E+02		8.00E+01	
2¢	1096	.011959	7.715+33	59.17		2.18181E+02	3.71E+03	9.	1.445-08	-4.735+32		8.00E+31	
20	1097	.006441	7.71E+07	49.69		1.72P1(E+02	3.71E+03	0.	1.44E-98	-4.70E+02		8.COE+31	
3.0	1089	.023784	3.716+03	56 • 0 Z	47.28	2.C0C41F+02	3.71E+03	0.	1.44E-08	-4.736.402	#5.54E #UI	MACHETAL	
21	1630	.502388	3.71F+03	11.49	87.83	4.09150F+02	3.71E+03	0.	1.44E-08	-4.7GE+32	9.548+61	8.016+01	
21	1040	• UCS421	3.71E+03	15.44		3.(61716+02	3.716+03	0.	1.44E-08	-4.78E+02	9.54E+01	8.695+01	7
21	1050	052804	3.71E+63	21.85		2.4287CE+02	3.71E+03	8.	1.44E-08	-4.7SE+92	9.546+31	8.G0E+01	0
21	1050	.0(3103	3.71F+03	28 .45		2.228655+02	3.71E+03	0.	1.448-69	-4.70E+02	9.545+01	8.036+81	
21	1065	•909669	3.71E+C3	36.30		2.24825E+12	3.71E+03	0.	1.44E-08	-4.73E+32	9.54E+01	R.CDE+C1	
21	1080	.003749	3.71E+03	33.A1		1.3456CE+02	3.71E+03	0.	1.44E-J8	-4.735+32	9.54E+01	8.000+01	
	1092	.BR5846	3.716+03	31.63		1.313975+82	3.71E+03	0.	1.446-08	-4.735+32	9.54E+01	8.80E+01	
21			3.716+03	58.54		2.149485+02	3.71E+03	ů.	1.44E-J8	-4.70E+52	9.54E+01	8.006+61	
21	1083	.000747	3.71E+03	39.58		1.459628+02	J.71E+03	o.	1.44E-38	-4.708+32	9.546+01	R.80E+31	
51	1084	.003710	3.716+03	58.62		2.14683E+02	3.71E+03	8.	1.445-08	-4.735+02	9.548+31	8.00E+01	
21	1085	.015514	3.71E497	49.69		1.7281CF+02	3.71E+03	G.	1.446-08	-4.7CE+32	9.54E+01	8.00E+01	
21	1096	.006441	3.71E+F3	59.17		2.181315+02	3.716+03	0.	1.44E-08	-4.70E+02	9.54E+31	8.39E+01	
21	1087 1088	.111959 .023784	3.71E+03	56.02		2.CCC41E+02	3.71E+03	0.	1.44E-08	-4.705+32	9.54E+01	8.00E+01	
21	1 deu	*#52104	2012046	96.02	7104.0	21005472.42		••					
11	1038	.000556	4.85E+84	85.5Z	138.85	4.27961E+02	+3.46E+03	-3.51E+03	4.92E+04	-3.37E+02	-2.426+02	-8.51E+01	
11	1040	.000114	4.05E+04	83.41	150.35	3.7082(E+02	-3.46E+03	-3.51E+03	4.02E+04	-3.37E+02	-2.42E+32	-8.51E+01	
11	* e								•				

MODEL = TAPE3 STEP = 1
PROCESSING OPERATIONS DATA

	-												
NODE I	NODE J	F(I,J)	AREA	THETI	ETBHT	RADIUS	N C F	REAL VECTOR	1	POS	ITICH VECTOR I		
153	1020	.054125	2.80E+84	46.88	70.57	2.(6844E+02	-7.72E-08	1.98E+04	1.988+04	1.43E+J2	-7.21E+31 -7.	21E+31	
153	1039	·CC1148	2.855+34	54-10		2.70309E+02	-7.72F-08	1.98E+04	1.98E+04	1.43E+02	-7.21E+31 -7.	21E+C1	
		.000194	2.8(E+04	63.82		3.59248E+02	-7.72E-08		1.98E+04	1-43F+02	-7.21E+01 -7.	21E+C1	
153	1040			84.75		5.05912E+02		1.98E+C4			-7.21E+31 -7.		
153	1070	.000027	2.R(E+04			5.069576+02		4 CHEARL	1.98E+04		-7.21E+01 -7.		
153	1.081	.000002	2.896+94	84.2G	91:479	24653365405		·			7 124		
154	1030 .	.00205	2.8(E+04	81.87		3.21735E+02	-7.72E-08	-1.9RE+04	1.98E+04		7.21E+31 -7.		
154	1040	.001251	2.8EE+04	78.06	92.23	2.198625+02		-1.58F+04			7.21E+01 +7.		
154	1050	035964	2.8(E+34	E5.79	36.32	1.56772F+02	-7.72E-08	-1.98E+04	1.98E+94		7.21E+31 -7.		
154	1079	.430157	2.8CE+84	52.72	95.81	7.64006E+01	-7.72E-08	-1.98E+04	1.98E+04	-3.82E+J2	7.21E+01 -7.	21E+01	
154	1080	.016158	2.8CE+04	51.91		8.3C409E+01			1.98E+04		7.21E+31 -7.		
154	1085	.005355	2.805+04	21.77		1.541365+32	-7.72E-08	-1.98E+94	1.98E+04	-3.82E+02	7.21E+01 -7.	.21E+01	
154	1047	.002933	2.8CF+94	32.70		1.246955+02	-7-72F-88	-1.58E+34	1.98F+04	-3.82E+02	7.21E+01 -7.	21E+81	
194	1447	*045A99	24017494	32.474	20416								
155	1030	.025332	2.8CE+04	73.08	92.85	1.56374E+02	-7.72E-98	-1.58E+84	1.98E+04		7.21E+01 -7.		
155	1040	.432843	2.806+04	55.79	95.61	7.95107E+01	-7.72E-08	-1.98E+94	1.98E+C4		7.21E+01 -7.		
155	1050	594272	2.8CE+04	39.45	104.90	8.32445E+01		-1.98E+04	1.98E+04	-2.076+02	7.21E+61 -7.	.21E+31	
155	1060	.020305	2.6[8+94	39.42	64 64	1.(8607E+32	-7.72E-08	-1 98E+04	1.98E+04	-2.07E+J2	7.21E+31 -7.	21E+01	
155	1070	.018229	2.8(6+04	73.93		1.67234E+82		-1.988+04		-2.67E+62	7.21E+11 -7.	21E+91	
	1080	.000955	2.8(F+04	72.50	92.25	1.7034CE+02				-2.07E+02	7.21E+91 -7.	21E+C1	
155		.008868	2.P0F+04	48.07		2.14171F+02	-7.72E-08	-1.98E+04	1 98F+04	-2.07E+02			
155	1095	_		57.27		1.940P5E+02		-1.98E+34			7.21E+01 -7.		
155	1087	.005864	2.8GE+34			1.6787EE+02	-7 72E-08	-1.98E+04	1 GRF+64	-2.07E+02			
155	1088	.001770	2.8(5+04	€₹.10	42.01	Tackouce.				-21012.02	74616.07		72
156	1030	.009461	2.80E+04	71.77	79.18	2.16419E+02	-7.72E-08	-1.98E+04	1.98E+04	-3.25E+01	7.218+91 -7.	21E+01	
15€	1010	.018866	2. ACE+04	58.96	74.77	1.546255+02			1.98E+04	-3.25E+J1	7 215+11 -7	21E+C1	
156	1015	.J58815	2.8 (E+04	43.24	FR.21	1.1944 PE+02	-7.72F-00	-1.98E+04	1.98E+04	-3.25E+91	7.21E+01 -7.	21E+01	
156	1020	.089753	2.8(5+04	38.DA		7.95442E+01	-7.72E-88		1.986+84	-3.258+01	7.21E+01 -7.	21E+C1	
156	1039	.418305	2.8(E+04	55.93		8.12333E+01			1.98E+04		7.215+01 -7.		
	-	-	2.8(E+C4	73.46	•	1.59858E+02			1.982+04		7.216+31 -7.		
156	1047	.016706				3.33657E+02	-7.72E-88		1.98E+04	-3.255+01			
156	1070	.000164	2.8CE+04	82.03	91.17	3.3524CE+02	-7.72E-08		1.98E+04	-3.25E+01			
156	1689	.090014	2.80E+64	81.71	91414	3.352466402	-1.126-06	-1.505.04	14 506 144				
157	1000 -	.158702	2.80E+04	25.29	57.14	7.48914F+01	-7.72E-08	-1.98E+34	1.98E+04	1.438.02	7.216+01 -7.	.21E+01	
157	1619	.081322	2.8CF+04	31.93	64.37	9.39348E+01	-7.72E-G8	-1.58E+34	1.98F+04	1.436+92	7.21E+01 -7.	21E+01	
157	1015	.137356	2.8(E+74	52.99		1.324545+02	-7.728-98	-1.98E+04	1.986+04	1.43E+02	7.21E+01 -7.	21E+31	
157	1020	054125	2.8(E+C4	67.48		1.E3448E+02	-7.72E-C8	-1.98E+04	1.98E+04	1.43E+32	7.215+01 -7.	21E+C1	
	1030	.0G1148	2.8(8+04	78.26		2.23E42F+02	-7.72E-08		1.98E+04	1.43E+02	7.21E+01 -7.	21E+01	
157			2.8CE+04	81.97		3.25633E+02	-7.72E-08		1.98E+04	1.43E+02	7.21E+01 -7.	21E+81	
157	1648	.090194	2.80E+04	84.75		5.05912E+02	-7.72E-00		1.98E+04		7.21E+01 -7.	-	
157	1870	.000027				5.06957E+02	-7.72E-08		1.98E+04		7.21E+01 -7.		
. 157	1000	*000035	2. A CE+ 04	84.20			r • 1 2 E = U G	10,000.04	24 272.184				
140	1050	.061761	3.27E+64	24.84	56.96	2.48399E+02	3.27E+04	0.	1.27E-07	-4.70E+J2	-5.10E+01 -3.	99E-10	
140	1060	.001088	3.27E+C4	21.35		2.1630CF+52	3.27E+04	a.	1.27E-07	-4.7DE+92	-5.10E+01 -3.	99E-10	
140	1065	.913873	3.27E+04	16.18		1.88675F+02	3.27E+04	0.	1.27E-07	-4.70E+32	-5.10E+01 -3.	99E-10	
= =		.001177	3.27E+G4	48.77		1.69627F+02	3.276+94	0.	1.27E-07	-4.70E+02	-5.10E+01 -3.	99E-10	
140	1092	* GUILF?	SAEILTUM	40 61 1	J-7 # F G	200,702.11.00	348.6.34						

MCDEL = TAFE3 STEF = 1 PROCESSING OPERATIONS DATA

SHUTTLE CONTAMINATION STUDY (SPACE LAB! (REGIEVING SHUTTLE))

NODE I	NODE J	F(T ₁ J)	AREA	THETI	THETJ	RADIUS	NCRYAL	VECTOR	I	POSITION VECTO	CR I
140	1063	.001174	3.27E+04	14.29	96.97	1.153708+02	3.27E+04 0.	•	1.27E-67	-4.70E+32 -5.10E+01	-3.99E-10
140	1084	.024380	3.27E+04	46.28	45.66	1.617456+02	3.278+04 0.	ı	1.27E-07	-4.70E+02 -5.1CE+01	-3.99E-10
148	1085	.023765	3.27E+14	8.37		1.130056+02	3.27E+04 0.	ı	1.27E+07	+4.70E+02 -5.10E+31	-3.998-10
140	1086	.018489	3.27F+94	43.56		1.54269E+02	3.272+04 0.		1.278-07	-4.79E+32 -5.10E+01	-3.99E-10
140	1687	.018214	3.27E+04	20.85		1.196376+02	3.27E+04 0.		1.278-37	-4.70E+02 -5.1CE+01	-3.99E-10
140	1088	.035641	3.27F+04	34.04	65.62	1.34917E+02	3.27E+04 0.		1.27E-07	-4.70E+02 -5.1CE+31	-3-99E-10
135	1530	.092999	3.27E+04	55.82	144.12	1.(1819E+02	-3.27E+04 0.	•	1.27E-07	2.30E+02 -5.1CE+G1	3.996-10
135	1020	.043876	3.275+94	24.58		2.564985+02	-3.27E+04 0.		1.27E-07	2,30E+02 -5.10E+01	3.99E-10
135	1200	.060018	3.27E+04	13.80		2.37639E+02	-3.27E+04 0.	1	1.278-07	2.30E+02 -5.10E+01	3.99E-19

MCDEL = TAPE3 STEP = 1
PROCESSING OPERATIONS DATA

796 796 796 796 796 796 796	1030 1040 1050 1050 1070 1081 1084 1086	.002728 .057906 .024307 .007199 .026219 .026215 .004536	2.41E+04 2.41E+04 2.41E+04 2.41E+04 2.41E+04 2.41E+04 2.41E+04 2.41E+04	57.36 45.37 38.35 36.79 25.50 73.83 37.15 28.96	130.76 2.98792E+02 148.24 2.29423E+02 105.42 1.7637EF+02 170.05 1.42919E+02 116.58 1.46899E+02 61.26 7.56285E+01 27.60 1.91627E+02 37.42 1.76037E+02	-3.40E-07 -3.40E-07 -3.40E-07 -3.40E-07 -3.40E-07	2.08E+04 -1.23E+04 2.08E+04 -1.23E+04 2.08E+04 -1.23E+04 2.08E+04 -1.23E+04 2.08E+04 -1.23E+04	-2.95E+02 -1.15E+02 -1.31E+01 -2.95E+02 -1.15E+02 -1.31E+01
798 798	1070 1010	.027810 .022397	2.41E+04 2.41E+04	47.05 38.83	141.21 1.88161E+02 162.93 1.53429E+02			5.50E+01 -1.15E+02 -1.31E+01 5.59E+01 -1.15E+02 -1.31E+01

SHUTTLE CONTAMINATION STUDY (SPACE LAB1 (RECIEVING SHUTTLE))

MCBEL	=	TΑ	PE3	STEP	= 1	
PROCE	SSI	NG	OPE	PATTON	S D/	AT/

LAGGESS	THO OFE	PITONS DATE	a									
NCDE I	L 3204	F(I,J)	AREA	THETT	THETJ	RADIUS	NCF	RPAL VECTOR	· I	POSI	TICH VECT	CR I
700	1015	.021898	2.41E+04	35.19	172-01	1.481075+02	-3.40E-07	2.08E+04	-1.23E+04	5.50E+J1	-1.15E+02	-i.31E+01
798		.024415	2.41E+04	39.16		1.899988+02	-3.40E-07		-1.23E+04	5.50E+01	-1.15E+92	-1.31E+C1
798	1020	•		45.89		2.31541F+02	-3.40E-07		-1.23E+04	5.50E+01	-1.15E+02	-1.31E+01
798	1030	.052424	2.41E+04			3.01820E+02	+3.40E-07		-1.23E+J4		-1.15E+02	
798	1040	.09224A	2.41E+04	57.72		4.152836+02	-3.40E-07		-1.23E+04			-1.31E+01.
798	1081	.ggnp13	2.41E+64	67.09	04.50	4.122026402	-21401-07	2.000	10232101			
311	1015	.010714	2.99E+04	52.24	52.24	1.151316+02	6.576-07	-2.59E+94	-7.98E-18			-4.71E+01
311	1030	.000349	2.99E+04	83.43		1.931826+02		-2.99E+04		1.176+02	1.025+02	-4.71E401
•												
700	1039	.000197	2.816+04	82.70	97.30	6.28414E+02	-2.18E-07	2.81E+04	-1.09E-07	-6.51E+02	-1.23E-08	2.25E+02
380		.000222	2.81E+94	81.36		5.31941E+02	-2.186-07		-1.09E-07		-1.23E-08	
380	1040	.000920	2.81E+04	83.44		4.669516+02	-2.18E-07		-1.09E-07	-6.51E+02	-1.23E-08	2.256+02
389	1050		2.01E+04	86.56		4.39083F+02	-2.18E-07		-1.09E-07		-1.23E-08	
380	1661	.00009				3 . 68121E+02	-2.18E-07		-1.09E-07		-1.23E-08	
38C	1082	•000035	2.016+94	78.12			-2.18E-07		-1.09E-J7		-1.23E-08	
380	1884	.00079	2.815+94	60.05	69,010	3.78935E+02	-54105-01	28610404	-14036 01	(4)26.96	14000 70	
705	4.620	000063	2.05E+04	83.61	96.30	7.17846E+02	-1.60E-07	2.05E+04	-7.99E-08	-7.46E+02	-1.31E-08	2.25F+C2 5
385	1030	.000062	2.055+04	82.58	• •	6.1895CF+02	-1.60E-07		-7.99E-08		-1.31F-38	
385	1049	.000114		84.46		5.52141E+02	-1.60E-07		-7.99E-38		-1.31E-08	
385	1050	.000211	2.05E+34			5.27423E+Q2	-1.60E-07		-7.99E-08		-1.31E-08	
385	. 1060	.000047	2.05E+04	87.25					-7.99E-08		-1.31E-08	** *
335	1065	E03090.	2.05F+04	90.00		5.152835+02	-1.60E-67	2.056+04			-1.31E-08	
385	1082	.000003	2.05E+04	80.26	61.47	4.47875E+02	-1.606-07	2.052734	-1.446-00	-11405405	-14316-00	C#E3C*46
390	1030	.000107	2.818+04	97.31	97.31	6.28427E+02	2.198-07	-2.91E+04	1.09E-07		-1.03E-01	
390	1040	.003255	2.81E+94	98.65	98.65	5.31956F+32	2.18E-07	-2,01E+04	1.095-07		-1.00E-01	
390	1.050	.000918	2.816+04	96.57		4.66963E+82	2.18E-07	-2.81E+04	1.09E-07	-E.51E+02	-1.00F-01	2.25E+32
	1060	.060009	2.81E+*4	93.36		4.30085F+02	2.18E-07	-2.61E+94	1.09E-87	-6.518+82	-1.0SE-31	2.25E+62
390		.0000035	2.81E+04	78.13	- •	3.68101E+02		-2.81E+04	1.09E-07	-6.51E+02	-1.00E-C1	2.25E+G2
390	1083		2.815+74	80.64		3.78917F+82		-2.81E+34	1.09E-07	-6.51E+02	-1.00E-01	2.25E+C2
390	1095	.000078	E + UIET H	69.04	0,400	, 3417,7227, 101	24200			•		
395	1030	.000162	2.056+04	96.40	96.40	7.178575+02		-2-05E+04			-1.00E-01	
395	1040	.000114	2.05E+C4	97.43	97.43	6.189636+32	1.69E-07	-2.15E+04	7.99E-08		-1.00E+31	
395	1050	.000210	2.05E+04	95.55		5.52151E+02		-2.05E+04		-7.46E+02	-1.00E-31	2.25E+02
	1060	.000007	2.05E+04	92.81		5.23428E+02		-2.05E+04		-7.46E+02	-1.00E-01	2.25E+02
395		.000007	2.056+04	90.01		5.15283E+02		-2.05E+34		-7.46E+32	-1.00E-31	2.25F+02
195	1665		2.055+04	80.27		4.47858E+02		-2.05E+04			-1.0CE-01	
395	1893	.00003	ときせつごせ (サ	C U + & '	CIPIC	,	2000	4.422.01				

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161	1020	.011248	1.75E+02	97.08	12.36	1.54256E+02	0.	D	1.75E+02	1.43E+02	1.02E+02	1.90E+01	
161	1030	.000676	1.75E+02	95.10	83.93	2.13600E+02	0.	ů.	1.75E+02	1.43E+32	1.82E+32	1.90E+C1	
161	1040	.000112	1.75E+02	93.42	85.94	3.1882CE+02	G -	0 -	1.75E+92	1.43E+02	1.02E+02	1.90E+61	
						•						•	
163	1020	.014060	1.75E+02	169.00	93.62	5.83677E+01	0.	0.	1.75F+02	-3.25E+01	1.02E+J2	1-906+01	
163	1030	040779	1.758+02	113.85		4.69858E+01	0.	0.	1.75E+02	+3.255+01	1.025+02	1-936+31	
163	1040	.003091	1.75E+02	97.50		1.45478E+02	0.	0 .	1.756+02	-3.25E+01	1.02E+02	1.93E+01	
10.9	1445	• 0 (0.0 52	**********		~								
165	1030	.003698	1.75F+02	97.71	80.81	1.41563E+02	0 •	0.	1.75E+02	-2.07E+02	1.02E+02	1.935+31	
165	1040	.041346	1.75E+02	115.62		4.39461E+01	0.	0.	1.756+02	-2.07E+32	1.02E+02	1.90E+01	
165	1057	.007475	1.756+02	107.15		6.44401F+01	0.	0.	1.75E+02	-2.07E+02	1.02E+02	1.90E+01	
103	.2051	*667412	20172702	10.415	.4,00		•		••••				76
465	4.000	202440	4 300.00	67.16	05 00		0.	0.	1.75E+02	-3.82E+02	1.02E+02	1.93E+01	
167	1030	.000118	1.756+02	93.46		3.14830E+02	-		1.75E+02	+3.82E+02	1.02E+02		
167	1048	.00073F	1.756+02	95.20		2.096405.02	0.	0.			1.02E+02		
167	1050	.012331	1.755+02	97.39	14-50	1.476496+02	0.	0.	1.756+02	-3.82E+12	1.025+02	1.995*01	
399	1030	.001443	4.156+03	68.64	98.05	5.76693E+02	2.94E+83	2.29E-08	2.94E+03	•	-1.08E-08	2.25E+02	
399	1040	.002218	4.156+03	73.80	99.65	4.7653CE+02	2.94E+03	2.29E-08	2.94E+03	-5.08E+u2	-1.08E-08		
399	1050	.gra325	4.15E+03	78.31	50.65	4.1343FE+02	2.94E+03	2.29E-08	5.94E+03		-1.08E-08	2.25E+02	
399	1060	.000501	4.156+03	86.63	93.80	3.86511E+02	2.94E+C3	2.29E-08	2.94E+03	-5.88E+02	-1.38E-08	2.25E+02	
399	1065	.0000865	4.15E+03	63.47	38.47	3.81598E#02	2.946+03	2.29E-08	2.94F+03	-5.685#62	-1.08E-08	2.25E+C2	
399	1082	190030.	4.15E+03	87.62	48.92	3.20473E+02	2.94E+03	2.29E-08	2.94E+03	-5.88E+32	-1.38E-08	2.258+02	
399	1084	.000202	4.15E+03	90.33	65.97	3.32843E+02	2.94E+83	2.296-08	2.94E+03	-5.88E+02	-1.06E-06	2.25E+92	
399	1096	.000002	4.15E+03	94.29	53.13	3.550035+02	2.948+03	2.29E-08	2.94E+03	-5.88E+62	-1.00E-08	2.25E+C2	
1000	1019	-002043	1.91E+04	90.00	90.00	7.6610CE+01	-1.39E-07	1.91E+04	1.62E-07	1.736+02	3.15E+01	-1.70E+01	
1000	1015	.00569	1.91E+04	90.00		1.3477EE+02	-1.398-07	1.91E+04	1.62E-07	1.73E+92	3.15E+01	-1.73E+01	
1000	1020	.007840	1.91E+94	82.21		1.7851 EE+02	-1.39E-07	1.91E+84	1.62E-07	1.73E+02		-1.70E+01	
1000	1171	.070935	1.915+84	118.37		3.99922E+01	-1.39E-07	1.91E+04	1.62E-07	1.736+32		-1.70E+01	
1000	1101	\$ U 7 1. 17 U J	24331.404	22000	22004		/						
1010	1020	.018818	1-178+04	76.57	41.39	1.04200E+02	9.096-08	1.17E+04	9.09E-08	9.816+01	3.15E+01	3.39E-10	

MODEL = TAFE3 STEP = 1 SHUTTLE CENTAMINATION STUDY (SPACE LAB1 (RECIEVING SHUTTLE)) FROCESSING OPERATIONS DATA

1015	1020	.108074	1.17E+04	60.26	57.71 4.87776E+01	9.09E-08	1.17E+04	9.09E-08	3.916+01	3.15E+01	3.39E-10
1201	1131	.009128	2.616+01	69.19	33.73 2.44749£+02	-1.31E+01	-1.86E-10	-2.48E+01	-7.80E-01	€.25E-09	2.47E+01
1040	1120	.001770	5.32E+04	134.29	45.01 1.14429E+02	4.14£-07	5.32E+04	4.14E-07	-1.75E+02	7.99E+01	6.31E-06
1059	1060	.927611	2.1SE+C4	75.39	46.73 4.047836+01	-1.78E+84	1.12E+04	2.62E-08	-2.45E+02	5.336+01	
1050	1082	.000558	2.1CE+C4	22.00	96.89 1.166646+02	-1.78E+04	1.12E+04	2.62E-08	-2.45E+û2	5.33E+01	5.22E-10
1050	1093	.300883	2.106+04	ec.81	94.65 1.725785+02	-1.78E+84	1.12E+04	2.626-09	-2.45E+02	5.33E+G1	5.22E-10
1050	1094	.013960	2.106+04	26.19	82.95 1.14533E+02	-1.78E+94	1.12E+04	2.62E-08	-2.45E+32	5.33E+01	5.22E-10
1050	1085	.014901	2.1 (E+04	78.46	45.58 1.64696E+02	-1.78E+04	1.12E+34	2.62E-09	-2.45E+12	5.33E+01	5.22E-10
1050	1086	.011198	2.1(5+04	40.33	78.98 1.21451E+02	-1.78E+04	1.12E+04	2.62E+88	-2.45E+12	5.33E+31	5.22E-10
1050	1097	.009515	2.10E+04	74.05	49.23 1.57971E+02	-1.78E+04	1.12E+04	2.62E-08	-2.45E+02	5.33E+91	5.22E-10
1050	1 2 4 4	.016876	2.1CF+54	60.39	E6.07 1.37323F+02	-1.78E+04	1.12E+04	2.626-08	-2.45E+02	5.33E+91	5.22E-10
1350	1131	.002035	2.1CE+04	111.37	61.39 7.36981E+01	-1.78E+84	1.12E+04	2.62E-08	+2.45E+32	5.33E+J1	5.22E-10
	•									5 5 6 5 . 0 4	0 435 40
1360	1082	.000135	4.75E+03	59.52	98.13 9.89811E+01	3.696-08		3.69E-08	-2.74E+02	2.56E+01	2.426-13
1360	1083	.000135	4.755+03	139.93	96.06 1.325116+02	3.69E-08		3.69E-08	-2.74E+82	2.56E+01	2.47E-13
1060	1094	.019222	4.75E+63	64.64	64.42 9.34959E+01	3.696-08		3.69E-08	-2.74E+02	2.56F+01	2.42E-10
1469	1085	.019222	4.75E+03	137.21	44.33 1.24354E+02	3.69E-08	_	3.698-88	+2.746+02	2.56E+01	2.42E-10 2.42E-10
1060	1086	.015230	4.75E+03	77.49	62.97 9.649645+31	3.69E-08		3.69E-08	-2.74E+32	2.56E+01	
1,060	1087	.015158	4.75E+83	127.43	46.32 1.1863(5+02	3.69E-08		J.69E-08	-2.74E+62	2.56E+01	2.426-10
1060	1688	.025858	4.756+03	104.23	57.66 1.[4111E+02	3.69E-08		3.69E-08	+2.74E+02	2.565+01	2.42E-10 2.42E-10
1060	1131	.00062	4.75E+03	168.62	78.72 6.64211E+01	3.69E-08	4.756+33	3.69E-08	-2.74E+G2	2.56E+01	2.426-10
					E0	- 5 065407	-2.91E-08	1.505-08	-2.89E+02	8.385-09	-1.28E+01
1065	1084	.BP1426	2.066+03	43.50	50.68 9.56785E+01		-2.91E-08	1.508-08	-2.89E+02		-1.28E+C1
1065	1085	.081426	2.0EE+33	43.50	50.68 9.56785F+01		-2.91E-08	1.50E-J8	-2.89E+02		-1.28E+01
1965	1986	.071248	2.06E+03	38.45	52.18 8.8617FE+01	-2 065103	-2.91E-08	1.50E-GR	-2.89E+02		-1.28E+01
1965	1087	.071248	2.0EE+03	38.45	52.18 8.86105E+01 58.28 8.15890E+01	-2.UCETU3	-2.51E-08	1.50E-08	-2.89E+02		-1.28E+01
1065	1888	.142823	2.066+03	31.72	58420 C115040E401	-21002103	-20111	2000			
1082	1130	.000293	6.84E+02	73.07	64.92 1.41139E+82	Q •	0.	E.84E+02	-3.58E+32	7.58E+01	1.40€+61
1083	1130	.000283	6.84E+02	73.63	65.77 1.45783E+02	0.	0.	6.84E+J2	-3.58E+02	-7.5eE+01	1.40E+91
4001	4805	.069758	5.17E+03	18.39	18.39 1.313000+02	6.93E-08	-4.90E+03	1.63E+03	+3.58E+02	6.57E+01	-7.50E+00
1084	1085	*015.740	5.17E+03	79.61	76.84 3.57649F+01		-4.90E+03	1.63E+03	-3.58E+02	6.57E+01	-7.50E+CO
1084	1086		5.17E+03	35.66	24.69 1.1744CE+02		-4.93E+03	1.63E+03	-3.58E+02	. E.57E+01	-7.50E+00
1084	1087	.055797 .088759	5.17E+03	54.68	53.71 8.14442F+01		-4.50E+03	1.63F+03	-3.58E+02	6.57E+01	-7.50E+0D
1084	1088	•000/22	34112100	J 7 400	20112 2011110						

MCDEL = TAPE3 STEP = 1 PROCESSING OPERATIONS DATA

SHUTTLE CONTAMINATION STUDY (SPACE LAB1 (RECIEVING SHUTTLE))

NOCE I	NOCE J	F(I,J)	AREA	THETI	THETJ	2UI naq	NCRHAL VEGTO	R I	POSITION VECTOR I
1084	1130	-000382	5.17E+03	57.32	71.50	1.44232E+02	E.93E-08 -4.90E+03	1.63E+03	-3.58E+02 6.57E+01 -7.50E+00
1085	1086	.055797	5.17E+03	35.66	24.69	1.174405+02	-3.35E-08 4.50F+03	1.63E+03	-3.58E+02 -6.56E+01 -7.50E+00
1085	1987	°C15740	5.175+73	79.61	76.84	3.97649E+01	-3.35E-08 4.90E+03		-3.58E+02 -6.56E+01 -7.50F+00
1085	1098	.088759	5.176+03	54.68	53.71	0.144425+01	-3.35E-08 4.90E+03		-,
1085	1170	.000382	5-17E+03	54.42		1.481796+02	-3.35E-08 4.90E+03		-3.58E+32 -6.565+31 -7.50E+50
1086	1087	.061000	4.098+03	41.95	41.95	9.30000F+01	4.31E-00 -3.04E+03	2.74F+83	-3.58E+02 4.65E+31 -4.24E+01
1086	1088	.0932€8	4.09E+33	57.97	73.98	4.83794E+01	4.31E-08 -3.04E+J3	2.74E+03	-3.58E+02 4.65E+01 -4.24E+01
1086	1130	.000106	4.096+03	51.87	81.54	1.562075+02	4.31E-98 -3.04E+03		+3.58E+02 4.65E+01 -4.24F+01
1086	1131	-000016	4.09E+03	51.87	98.46	1.56207E+02	4.31E-08 -3.04E+33	2.74E+03	-3.58E+02 4.65E+01 -4.24E+01
1087	1098	.0932EA	4.09E+03	57.97	73.98	4.83784E+01	-4.31E-08 3.04E+03	2.74E+03	-3.58E+02 -4.65F+01 -4.24E+01
1087	1130	.000075	4-196+03	49.57	81.68	1.58892E+92	-4.31E-C8 3.04E+03		-3.58E+02 -4.65E+01 -4.24E+C1

100E I	NODE J	F(I ₁ J)	AREA	THETI	THETJ RADIUS	NORMAL VECTOR	I	POSITION VECTOR I
•		·		,		and the state of t		
20	1110	.000008	3.71E+03	13.78	69.68 4.02611E+02	3.718+03 0.	1.44E-08	-4.70E+02 -9.54E+01 8.00E+0
20	1111	.000032	3.71E+03	13.70	90.12 4.02611E+02	3.71E+03 0.	1.44E-08	-4.70E+02 -9.54E+01 8.00E+0
20	1120	.000083	3.71E+03	18.67	89.83 2.97883E+02	3.71E+03 0.	1.44E-08	-4.70E+02 -9.54E+01 0.00E+0
28	1121	.006127	3.71E+03	18.67	90.17 2.97883E+02	3.71E+03 0.	1-44E-08	-4.70E+02 -9.54E+01 8.00E+6
20	1130	-000779	3.71E+03	24.33	34.39 2.48474E+02	3.71E+03 O.	1.44E-08	-4.70E+02 -9.54E+01 8.G0E+0
24	1110	.006008	3.71E+03	13.70	89.88 4.02611E+02	3.71E+03 0.	1.44E-08	-4.70E+J2 9.54E+01 8.00E+0
21	1111	.006632	3.71E+03	13.70	90.12 4.02611E+02	3.71E+03 0.	1.44E-08	-4.70E+02 9.54E+01 8.00E+0
21		.000032	3.71E+03	18.67	89.83 2.97883E+02	3.71E+03 D.	1.44E-08	-4.70E+02 9.54E+31 8.60E+0
21	1120		3.71E+03	18.67	90.17 2.978836+02	3.71E+03 0.	1.44E-08	-4.70E+02 9.54E+01 8.0JE+0
21	1121 1130	.060127 .000779	3.71E+03	22.72	33.34 2.45442E+02	3.71E+03 0.	1.44E-08	-4.70E+02 9.54E+01 8.00E+0

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						,							
			•				•						
		•											
		•										•	
		•										-	
152	1 20 1	.000013	2.80E+04	19.74	. 31.61	1.50618E+02	-7.72E-08	1.99E+04	1.98E+04	-3.25E+01	-7.21E+01	-7.21E+01	
153	1200	.000000	2.8(E+04	46.37	103.02	2.65440E+02	-7.72E-08	1.98E+04	1.98E+04	1.43E+02	-7.21E+01 -7.21E+01	-7.21E+01	
153 153	1231 1101	.000013 .003303	2.80E+04 2.8(E+04	46.37 13.97		2.05448E+02 1.27469E+02	-7.72E-08 -7.72E-08	1.98E+04 1.98E+04	1.98E+04 1.98E+04	1.43E+02	-7.21E+01	-7.21E+01	
	•								·				

SHUTTLE CONTAMINATION STUDY (SPACE LAB1 (RECIEVING SHUTTLE))

156	1201	.000013	2.80E+04	19.74	31.61 1.50618E+Q2	-7.72E-08 -1.98E+04	1-98E+04	-3.25E+01	7.21E+01 -7.21E+01
157 157 157	1230 1231 1101	.000000 .000013 .063465	2.80E+04 2.80E+04 2.80E+04	46.37 46.37 19.45	103.02 2.05448E+02 76.98 2.05448E+02 32.13 1.12437E+02	-7.72E-08 -1.98E+04	1-98E+04	1.43E+02	7.21E+01 -7.21E+01 7.21E+01 -7.21E+01 7.21E+01 -7.21E+01
140	1133	.000690	3.27E+04	18.96	47.24 2.393926+02	3.27E+04 0.	1.27E-07	-4.70E+02	-5.10E+01 -3.99E-10
135 135 135	1200 1100 1111	.000034 .017353 .081137	3.27E+04 3.27E+04 3.27E+04	18.21 49.21 49.21	76.08 2.42947E+02 91.25 8.72475E+01 88.75 8.72475E+01	-3.27E+04 0. -3.27E+04 0. -3.27E+04 0.	1.27E-07 1.27E-07 1.27E-07	2.30E+02	-5.10E+01 3.99E-10 -5.10E+01 3.99E-10 -5.10E+01 3.99E-10

5.50E+01 -1.15E+02 -1.31E+01

5.50E+01 -1.15E+02 -1.31E+01

87.13 1.46529E+02 -3.40E-07 2.08E+04 -1.23E+04 -2.95E+02 -1.15E+02 -1.31E+01 62.47 .000096 2.41E+04 796 1130 103.96 1.4553CE+02 -3.40E-07 2.08E+04 -1.23E+04 5.50E+01 -1.15E+02 -1.31E+01

76.04 1.4553 CE+02 -3.40E-07 2.08E+04 -1.23E+04

69.33 1.76637E+02 -3.40E-07 2.08E+04 -1.23E+04

103.22

64.01

64.01

57.88

2.41E+04

2.41E+04

2.41E+04

.000001

.000018

.001248

172 1121

798

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1200

1 20 1

1101

1200 1201 1100 1101	.000000 .000006 .000001	1.75E+02 1.75E+02 1.75E+02	78.06 90.49 90.49	100.96 1.80062E+02 94.57 9.50311E+01 85.43 9.50311E+01	0. 0.	0. 0.	1.75E+02 1.75E+02 1.75E+02	1.43E+02 1.43E+02 1.43E+02		1.90E+01 1.93E+01 1.90E+01	25
1 20 1	.000013	1.75E+02	70.86	65.13 1.13575E+02	0.	0.	1.75E+02	-3.25E+01	1.02E+02	1.90E+01	
1130 1131	.000824	1.75E+02 1.75E+02	71.03 71.03	116.63 1.11008E+02 63.37 1.11008E+02	0 . 0 .	0 . 0 .	1.75E+02 1.75E+02	-2.07E+02 -2.07E+02		1.90E+01 1.90E+01	
1130	.000222	1.75€+02	78.04	55.55 1.7410EE+02	0.	0.	1.75E+02	-3.82E+02	1.02E+02	1.99E+01	
1100 1111 1121 1139	.000004 .000157 .000461 .000190	4.15E+03 4.15E+03 4.15E+03 4.15E+03	60.19 60.77 64.77 71.23	90.70 7.88182E+02 74.23 5.28628E+02 70.23 4.24813E+02 5.90 3.83487E+02	2.94E+03 2.94E+03 2.94E+03 2.94E+03		2.94E+03	-5.88E+02 -5.88E+02 -5.88E+02 -5.88E+02	-1.00E-08 -1.00E-08	2.25E+02 2.25E+02 2.25E+02 2.25E+02	,

32.04 3.99922E+01 -1.39E-07 1.91E+04 1.62E-07 1.73E+02 3.15E+01 -1.70E+01

118.37

MODEL	**	TAF	E 3	STEP	=	1
PROCE	SSI	NG	OPE	RATION	15	DATA

1018	1200	.000009	1.17E+04	105.48	91.63 1.1803EE+02	9.09E-08	1:17E+04	9.09E-08	9.81E+01	3.15E+01	3.39E-10	
1015	1201	.000046	1.17E+04	114.56	65.86 7.57997E+01	9.098-08	1.17E+04	9.09E-08	3.91E+01	3.15E+01	3.39E-10	
1020 1020	1200 1201	.000109 .000224	1.92E+04 1.92E+04	107.59 107.59	129.94 7.91925E+01 50.06 7.91925E+01	1.69E+04 1.69E+04	8.99E+03 8.99E+03	1.36E-07 1.36E-07	-3.25E+00 -3.25E+00		-8.00E-18	
1040	1120	.001770	5.32E+04	134.29	45.01 1.14429E+02	4.14E-07	5.32E+04	4.14E-07	-1.75E+02	7.99E+01	6.31E-06	
1060	1130	.000371	4.75E+03	109.00	93.00 6.65726E+01	3.69E-08	4.75E+03	3.69E-08	-2.74E+02	2.56E+01	2.42E-10	
			•						,			
1382	1130	-000448	6.84E+02	73.10	57.84 1.41377E+02	0.	0.	6.64E+02	-3.58E+02	7.58E+01	1.40E+01	
1083	1130	.086448	6.84E+02	73.60	58.86 1.45525E+02	0.	g .	6.84E+02	-3.58E+02	-7.58E+01	1.40E+81	
1084	1130	.000667	5.17E+03	57.16	63.78 1.44432E+02	6.932-08	-4.90E+03	1.63E+03	-3.58E+02	6.57E+01	-7.50E+00	
1085	1130	.000668	5.17E+03	54.57	64.45 1.47957E+02	-3.35E-08	4.90E+03	1.63E+03	-3.58E+02	-6.56E+01	-7.50E+00	<u>ω</u>
1086	1130	.000219	4.09E+03	51.74	73.15 1.56334E+02	4.316-08	-3.04E+03	2.74E+03	-3.58£+02	4.65E+81	-4.24E+01	
1087	1130	.000177	4.09E+03	49,69	73.41 1.58652E+02	-4.31E-08	3.04E+03	2.74E+03	-3.58E+02	-4.65E+01	-4.24E+01	

3.5.2 Spacelab-2/Orbiter Data Matrices - Figure 6 depicts the computer drawing of the modeled Spacelab-2 configuration indicating the nodal numbering assignments assigned to the primary Spacelab surfaces. (The Orbiter nodal assignments are depicted in Figure 4.) This is followed by a summary listing and description of the Spacelab-2/Orbiter nodal surfaces. The ensuing computer printouts contain the Input Data, Viewfactor Data, and Geometric Relationship Data matrices for the Spacelab-2/Orbiter configuration.

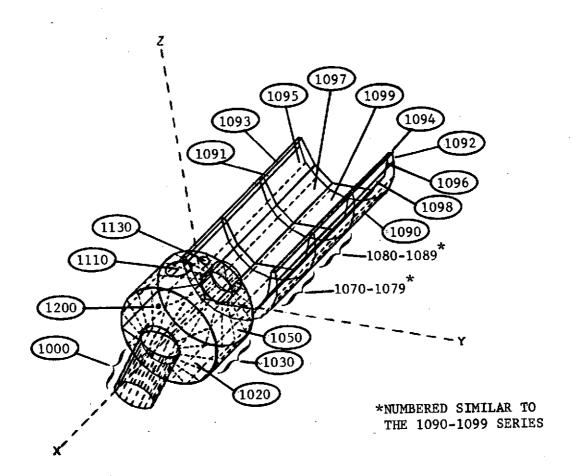


Figure 6. Primary Spacelab-2 Nodal Surface Number Assignments

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APFA

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MODE	300	APFA	^L PH	द्रभार	SURF. TYPE	ACTIVE	COMMENTS
732	BOOY	2.470E+04	c .	o .	GYLINDEP	OUTSID	+Y STOF DOCR
783	HUDA	2.4705+04	n .	9.	CYLINDEP	INSTOS	Y SIDE DOCR
704	BOOK	2.470=+64	•	ů •	CYLTHITEP	007510	+Y SIDE DOCR
795	POT V	2.477-+04	C .	0.	CYLTNDER	INSIDE .	+Y SIDE DOOP
73.6	BOOV	2 4705+04	i.	3.	CYLTNOFR	017710	+Y SIDE DOOR
737	PODY	2.470:404	را	0.	CALINDED	INSIDE	+Y SIDE DOOR
798	HUUA	2,4705+14	ŗ.	J .	CYLINDED	DUTSTO	Y STOE DOOP
791	4():Y	2.4175+64	Γ.	ņ.	CALINDED	THSTOS	Y SIDE DOOP
702	Prnq		0	ű.	CAFINDED	OUTSIO	Y SIDE DOOP
793	POOY	2.4137+04	0	0.	TYLTHOSE	INSIDE	Y SIDT DOOR
704	BUJA	2.4135+94	n	3.	CYLTHOER	OUTSID	Y SIDE DOOD
795	PORY	2.4137+14	0	ň.	DYL THO FR	INSTOR	Y SID= DOOF
706	ከቦገሃ	2.413.+14	i.	ð.	DAFIHOLS .	DHITSID	4 SIDE 0000
737	9074	2.4135+74	· ·	2.	CYLINDER	74870F	-v sige game
799	POOV	2.6135+64		3.	CAL INDUS	OUTSTD	y SINF NCOP
701	nnjy	2.3045+14	9.	7	TRAFFICIÓ	TOP	+Y SIDE FRONT TRAPOZOTO
. AUE	ลกาษ	4.9975+64	์ ู้ครูก	917	PHOTAMOLE	TOP	BOOK SIDE (MIDDLE-POPT) 305
30.6	80 TY	7.1500464	იევ	• วา ถ	PEGTANGLE	TOP	RODY STOF (RACK-POPT) 306
711	BO J Y	2.3944.+04		0.	Tanner 70 In	ROTTOM	-Y SIDE FRONT TRAPOZOTO
71.5	9 00 Y	3.6785+14	991	313	RECTANGLE	TOP	PODY SIDE (MICOLE+STRO) 315
714	POTY	3.7055494	ວກຳ	910	PERTAMBLE	The	300Y STOE (940K-STRO) 315
202	PNTY	₹.685@+04	ດງ	913	CALLNOLS	OUTSTO	900Y TOP (STOO-PEAR) 202
712	BODY	7.649.+34	.gnj	900	CAFLHULD	01210	900Y TOP (PORT-524R) 212
74.3	nony.	2.3057+04	. 300	.933	TRADEZOTO	TOP	VERTICAL FIN (PORT) 20
34=	ฅๆ กุ่ง	2,3545+34	.909	وززه	TRAPFICATO	TOP	MESTICAL FIN (POST-AFT) 20
79.0	BOJY	2.8057+04	900	. aj ģ	TPAPEZOTO	ROTTOM	VESTICAL FIN (STRO) 20
396	nn j v	2.6545164	900	923	TPANEZOTO	MOTTOM	VERTICAL FIN (STRO-AFT) 28
796	ຄດໆ∀	7.827-+11		0.	07.5°C	#OF.	MOST FORMARD EVAPORATOR
734	א ריים	1.5000-29	(•	ð.	ባ፣ያሳ /	ROTTOM	SUPER ENGINS (OHS LOCAT
731	300 Y	1.5919+93	ē.	0.	JICC	TOP	SUPSE ENGINS (OMS LOCAT
76.2	¤ሰባየ	1.5912+03	٠.	ð.	0150	POTTON	SUPER ENGINS COME LOCAT
79.3	B ∪ J Y	1.5005+03	Ü.	n.	በሂኖሮ .	TOF	TAGEL RMOD SPIRITE SERVERS LECENT
24	807 Y	2.8327+11	٤.	0.	ባተናሮ	POTTOM	*** MACK PCS *** DOKING */- Y.(
25	AGU _d	2.0328+01	Ĺ.	7.	りすらむ	TUB	PACK ROSLOOKING +/- Y.T
19	BUJY	0.9955+01	. 0 .	Û.	2150	POTTON	FRONT ROSLODKING +/-Y AT
19	BUDA	2.4755+81	9.	ù.	nts¢	T () D	FRONT ROSLOOKING +/-Y AT
?6	POOY	2.4726+51	Û.	0.	0.750	BOTTOM	*** BYCK BUZ FOOKING +/- 1.**1/
27	BODY	2.4325+01	Ü.	3.	0150	₹0°	PACK RCS LOGKTNG +/- 27/
16	BUUA	2.327-+01	S .	ð.	DISC	8077 0M	MIDDLE IVAP. LOOKING +/- Y.
1 7	POOY	2.8275+91	r •	₽	7130	TOP	MIDDLE EVAP. LOOKING +/- Y.
373	遊り通ね	4.1525+03	. 298	. 973	RECTANGLE	TOP	VERT. FIN LOG. FOGE 2
1000	801 Va	1.63955+84	9.	0.	CALIMDES	OUTSTO	TUNNTL 1, X=582 TO 668.3, SPA
1020	CUT VO	1.9195+04	n .	3.	しいかと	OHTSTO	FWO COME, X=668.3 TO 694.0, SP
1211	ፈቲΓ≬⊅	ግ• <u>ጸ</u> ተፍሮቀ↓1	۲.	9 •	01 °C	MOTTOE	EOS, CONDENSATE VENT, X=681. SPA
1201	CEL VA	2.875E+91	C •	0.	912¢	TOP	TOS. CONDENSATE VENT. X=681, SPA
1070	e⊱F Ju	T . 316F+04	c •	J.	CYLTNOFR	NUTSID	00°E SEGMENT X=694.0 ₹

SPACELAB-2 INPUT DATA MATRIX

The following pages contain the input data computer printouts for the Spacelab-2/Orbiter configuration.

THEHT CAPO COL. = 12345678 1 2345678 2 2345678 3 2345673 4 2345673 5 2345676 6 2345676 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

= 12345	678 1 234567d 2 2345678 3 2345623 4 2345623 5 2345626 5 234562d 7 23456	78 8 EDIT NO. OLD EDIT	
	SURFACE DATA	63	` Δ Δ
HE Aのご	1054=27 5	64	AA
T	1059= u 17=0TY=0T7=0.	6 5	44
	POTX=1., TOTX=U., TOYZ=0.	66	4
т	70SN = 1	57	AA
•	TV=89(TV=1.,T7=1.	58	A A 6 A
	KULTE-140. LUULTA DULTA	69	
	*CON P 2	7.0	Δ Q
1	*v = +5.3330000000E+02	71	AA
	Y = 0.	7.2	A A A A
	TO # 5.	73	4 H
	cat/ = -193.3430	74	A 4
	corv = +[,	7.5	VΨ
	enty = 0.	76	c a
t	1059 = 3	77	44
1	*v = %.ngnggngngf+02	78	AA
	TV = J. I	79	4.4 4.4
) 7 = J.	80	4 A
	0077 = -94.0000	81	44
	crty = -3.	92	
	onty = 00.0500	8.3	9 AA
I	TO311 = 4	0 -	AA -
•	= 6,3000000FF+08	55	44
	v = 6,297000010€+01	8 <u>6</u>	44
	tr = 2.43000000000000	37	22
•	nory = 79,7000	33	20
	0077 = 41,3000	89	A A
	TOTY = C.	90	ΔΔ
Ť	TC\$4 = 5	91	ΔA
,	†v = 4.30)00000105+02	92	. 44
	÷v = -6.290000000015+01	97	. 44
	+7 = ?.uannongini#+81	94 95	AA
	noty = 100.3370	36	44
	onty = -41.1171	97	AA
	cary = 0.	93	ÄÄ
I	₹C 5 N = 6	33	ā,ā
1	TY=+195.	193	5.5
	Ÿ∀=1.	101	ÄÄ .
	Trate.	102	AA
	5g+v=q,,2∩τγ=9).,R∩TZ=0.	193	AA
T	↑ ↑ S 1/2 *	153	ÄÄ
•	tr=+15,,tv=^,,tZ=14,		ÄÄ
	79TY=3.,KATY=94.,PAT7=3.	195 1J5	A A
₹	TO CHIE	197	ለስ
	Tv=-117.,Tv=0.,T2=14.	103	AA
	2717=1,,2017=33,,5017=0.	109	ÃÃ
I	To great	113	4.4
•	TV-178.,TV=CT7=18.	111	AA
	ortragenty==ade, Potz=d.	111	4 A
Ł.	T00+12)	113	A A
_	TV-11, TV= 1, T7-11.	* L *	

INPUT PAPE DOL. = 12345678 1 2345578 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

	PNTX=0.,RNTY=93.,RNTZ=8.	114	AA
Ī	ICSN = 11	115	AA
	TX=-470TY=-79.14,TZ=65.56	116	44
•	90TY=J.,90TY=9J.,90T7=9.	117	AA .
T	TOSN=12	118	AA
	TY==473TY=+78.14.T7=65.56	119	AA
	POTX=9., POTY=99.3, POTZ=9.	120	AA
I	TCSN=17	121	AA
-	TY =-700.,TY=10.,TZ=50.	122	AA
	POTX=0.6,POTX=-33.,POT7=0.	123	ДД -
Ŧ	TCSN=14	124	ДД
	TY=-717TY=3.9.TZ=-56.	125	ΔA
	ROTX=C. C. POTY=-9C. POTZ=0.	126	AA
I	TORNETS	127	ΔA
•	TY=-711TY=0.0.TZ=C.0	128	AA
	POTY=0.0, POTY=-97.35, ROTZ=0.0	129	AA
1	TOSH=16	130	AA
1	TX=-7(5TY=88T7=70.5	131	AA
	FATY=F.,PATY=~74,183,POTZ=12.241	132	AA
Ī	TORN=17	133	AA
1	· •	134	AA O
	TY=-705.,TY=+88.,TZ=70.5 POTX=0.,POTY=+74.183,POT7=12.241	135	20
_		136	AA
Ţ	7CSM=2J	137	ĀĀ
	TY=0,,TY=102.,TZ=0.	138	AA
_	FOTX=-5., POTY=0., POTZ=0.	139	ĀĀ
I	1024=51	143	Δ4
	TX=J.,TY=-132.,TZ=0.	= : -	ĀĀ
	FOTX=5., POTY=0., POTZ=0.	141	AA
20 S	BOUA	142	AA
•	CUPC#145,TYPF=TPAP,ACTIVE=TOP,SHADE=30TH,BCHAUE=80TH	143	44
	P1=-69810?., J.	144	
	P2=+69A.,1P2.,-12°.	145	AA
	P3=+729.,1 ² 4.,+1 ² 5.	146	44
	P4=+711.,102.,U.	147	AA
	₽₾(1₽=1,).	148	44
	COME* ** READ SIDE TARES*	149	- ДД
9	<pre>cupc=146, TYCE=TOAD, ACTIVE=BOTTOM.SHADE=BOTH.BSHADE=BOTH</pre>	150	. ДД
	\$1=-595.,-1320.	151	AA
	P2=-698.,-107.,-125.	152	AA
	P3=-728.,-152.,-155.	153	AA
	P4=-711.,-102.,-102.	154	AA
	POOP=jj.	155	ДД
	COME # = Y. DEAR STOE TAREP*	156	AA
S	SHOGN=7J7,TYPE=DISC,BCTTVE=POTH.SHANE=8OTH,BSHADE=9OTH	157	AA
=	04=246.,13+.,-47.	. 153	AA
	F2=212.,154.,-5).	159	AA
	r3=215,,134,,-47,	150	AA
	PA=21F+174+9+47	161	AA
	PPOP=60.	162	AA
	CONTACTOR OF THE PROPERTY OF T	153	AA
\$	SUPPERAT, TYPEROADAR, ACTIVE BONT, SHADE BROTH, BSHADE BOTH	154	ΔΔ

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INFUT CARD COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL AA 165 NIMENSTONS=4.4.0.0,100.,0.,367. AA 165 TCSN=13 AA 167 PPOP=0..g. ΔΔ COME TOP FUGIN # 168 AA SUPFEIGE, TYPEEPARAR, ACTIVEE OUT, SHADEE BOTH, BSHADEEBOTH 169 AA 170 DIMENSTONS=4.4.0.J.130.,J.,360. AA 171 TOSM=14.TY=+53. AA 172 PROPES. . J. 173 ΔΔ COM = P + Y ENGTH # 174 CHOC=149, TYPE=PARAR, ACTIVE=OUT, SHADE=BOTH, BSHADE=BOTH 175 AA DTMEMSTONS=4.4,0.0,130.,0.,360. 176 TOSM = 14. TY =+50. 177 Propeg..... 173 COM = 7 -Y SNGTN...* 179 SURF=27.TYPF+DISC,ACTIVE=DUT,SM40F+BOTH.BSHADE=BOTH AA 130 RIMENSTONS=0.0,0.0.45.,125.,335. ΔΔ 181 P>∩P=3..0. AA 182 TC 5*=11 183 AA LUM = + * * * * A UMZ ZEUFED * * * * 134 SUPF=21,TYPF=DISC,ACTIVE=OUT,SMADE=BOTH.BSHADE=BOTH AA PI 15NSION9=1.0.0.0.45..25..275. AA 136 იიცი=მ...... AA 137 TOSM=12 AA 188 COM= * ..+Y OWS SEALER ...* AA SUPF=222.TYPE=PECT, ACTIVE=90TTOM.SHADE=80TH.BSHADE=80TH 189 AA 190 P1=-723.,-172.,-125. 191 AA P?=-728.,132.,-125. AΑ 192 73=-711,,197,,0.0 AA 193 օրդբ±1.,1. AΔ 194 COME* BACK RECT 7.350EG* AA 195 SHOF=27.TYOT=919C.ACTIVE=TOP.SHADE=BOTH.BSHADE=BOTH AA 196 DIMENSIONS=0.0.0.8.102..90...270. 197 . P=0P=3..3. AA 198 TCCM=15 AΑ 139 COME* REAR END HALF DISK* SUPF=457,TYPC=DISC,ACTIVE=TOP,SHAGE=POTH,BSHAGE= BOTH 260 261 P1=-F92.0.117..-77. 202 P2=-592.0.113..-80. AA 203 r3=-595.0.113.,-77. 204 AΑ 04=-595.8,113.,-77. AA 265 PPOP=0.,3. COME* BACK STOE EVAPORAT. UPDATED JULY 18. 6 IN DIA.* 206 AA AA TURF=15,TYPE=015C,ACTIVF=TOP,SHADE=BOTH,BSHADE=BOTH 207 208 AA P1=-719.,126.,-95. 209 AA P?=-719.,126.,-98. 210 D3=-722.,126.,-95. 211 AA r4=-722.,126.,-95. AA 212 PROPES.S. 213 AΑ COMER DEAD END SYMPORATORS SURF=10.TYPE=POLY,&CTIVE=BOTTOM,SHADE=BOTH.#SHADE=BOTH AA 214

^1=23j.,j.,-102.

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TMPUT CAPO COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. DED EDIT NO. LABEL GΑ 216 02=-192..-39..-67. ΔΔ 217 C3=-192....-69. ΔΔ 218 TCCM=21 ΔΔ 219 F70P=3.,3. 223 ΔΔ COMER ...LEFT FRONT WING & ...* DΑ 221 SUDDEMAIL, TYPE DOL V, ACTIVE TOP, SHARE BOTH, BSHADE BOTH 8.6 222 21=-192.,-89.,-68. AA 223 F2=-493.,-39.,-85. 224 ΔA #7=-483, ,-36K., #8K. AA 225 T089=21 ΛA 226 ΔΔ 227 COMET,....LIFFT MIDDLE WING BACK.B ... * ДΔ 228 SHORE 141, TYPE = PERT, ACTIVE=TOP, BSHADE=BOTH, SHADE=BOTH S ΔΛ 229 Pi=+132..1..=60. ДД 230 P2==443.,3.,=85. ΔΔ 231 E7=-493.,-39.,-85. ΔΔ 232 5 T056=31 6.4 233 000F=1.44. 2.2 234 CONER OF THMES HING ΑΔ 235 SUDERALS, TYPERRECT, ACTIVERTOR, SHADERBOTH, SSHADERBOTH 5 ДΑ 236 Dj=-644,,+89,,=9j. ΔΔ 237 r2=-F44.,-356.,-90. ΔΔ 238 P3=-433..=366..=35. 239 ΔΔ 700N=21 AA 241 ponpen. a. 241 44 MOMEN LEFT BACK MECT. MING C * ΔΔ SHOP=142.TVPE=RECT.ACTIVE=TOP.SH402=BOTH.BSHAOF=BOTH 242 5 243 44 P1=-644., P., -9;. ΔΔ 244 02=-644...-39..-95. ΔΔ 245 17=123. . + 69. . + 45. AA 246 TCCH=21 ΔΔ 247 phn0=0.,). ДД 248 COMPA INNER MENG CA 249 ДД SURF=13, TYPE=POLY, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH S AA 250 mi=-693..7..-102. 251 Δ۵ Da=-844.,-368.,-90. 252 AΑ 253 AA erge=1..3. AA 254 TOPN=21 255 Δ'Δ COMER LEFT WING TAIL ENG! ..D . # ДΔ 256 SUPFRI, TYPERDOLY, ACTIVERTOR, SHADERBOTH, RSHADERBOTH 5 257 ΔΔ nt=230,,..,-70, AA 258 F2=-192..39.,-50. 259 AΑ D7=-102.,3.,-63. 260 АΑ F779: 7.,5. ΔĀ 261 TOCN±2] 262 ΔΔ COMEY. . . FRONT MYNG TRIANGLE RT. A. 532.1024* AA 253 THREES, TYPE=FOLY.ACTIVE=BOTTOM, SHADE=BOTH.ASHADE=BOTH S ДД 254 Phone=1.,0.

fir-193..39..-50.

5177-4633.430.4-85.

AA

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THRIT CARD COL. = 12345678 1 2345678 2 2345679 3 2345678 4 2345678 5 2345678 5 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL 267 P3=-493. . 765. . - 95. ΔΔ 258 COM=*.... MINOLE WING TRAP. DT 8 .. 1924.1292* ДΔ 269 TOSME 29 270 AΑ SUPFEL43.TYOE=DECT.ACTIVE=SOTTOM.SHADE=BOTH.SSHADE=BOTH S ΔΔ 271 D1=-192..5..-63. Δ۵ 272 P7=-437..3..-8". ΔΔ 273 DR=-487..89..+85. 274 ΔΑ POOPES..... 275 TOSM= 20 ΔΔ 276 COM=*8 +* RECTANGLE WING* 277 SUPERS. TYDERRECT. ACTIVERBOTTOM, SHADERBOTH, BSMADERBOTH 5 ΔΑ 278 P1=-F44..89..-90. ΔΔ 279 P2=-644..366.,-99. 230 ₩3=-433.,766.,-85. ΑΑ 281 propro.... ДД 232 T054=21 ДΑ 283 COM= 4... BACK WING! RECT. PTC .1292,1453* ΔΔ 284 SHOPE=144.TYDE=9007.ACTIVE=90TTOM.SHADE=80TH.BSHADE=80TH ς ΔΔ 285 M1=-F44..]..-4]. ΔC 236 ??=-£44..49..+-93. ДД 237 05=-493.,39.,-95. ДД 266 none=1..... ΔΔ 239 T0SM=23 ΔΛ 290 COMEA INNER MING C DECTA ΔΔ 291 SHEEF4, TYPF=DOLY, NCTIVE=BOTTOM, SHADE=BOTH, BSHADE=BOTH Ç ΔΔ 292 01=-F93..0..-102. ΔΔ 293 n2=-f44..365..-9J. Δ Δ 294 03=-644....-93. 295 AA ითეთლი...ე. AA 295 ΔΔ 237 CO 1-4 ... WING TAIL FLAP OF 1453,15974 ΔΔ 298 SHOPENE 150, SHADE=BOTH, ASHADE=BOTH, ALPHA==0. .EMISS==0. 299 AΔ TOAMSI-4. TRANT=-E. GOM=*RAY AREA CYLINDER 393 TYDE=CYLINGED .ACTIVE=INSTRE .ALPH= 1.02000E+02 391 AA , RMAX= 7.00000E+02.GMIN= 0. RMINE 3. AA 302 4, TCSM= -0 2 . HNY = GY4Y= 1.90330E+72.NHY= AA 303 POSTTTON=-4.750395+02, C. . 0. AA 304 = 90.0000. POTX cor7 = -0. • ooty 395 AA SUPPME 143, SHARE PROTH, RSHARE BROTH, ALPHA =- 0. . . EMISS=-0. S ΔΔ 306 TOANSE-]. TRANIE-G. , COMET END BAY AREA DISK 397 AA ACTIVE=TOP ΔLOU± C. ±vBe=otsc AA 308 .846Y= 1.72000 + 72.5MIN= 0. PMTN= o. AΑ 309 GMAX= 3.E00COC+L2.NMX= 1.NNY= 1.ICSN= -0 AΑ 310 , 0. DOSTITOM=-+.788887+92. 0. 311 ΑА ± αj.annu, ¤nTX = +0. , outy AΑ 312 SUDEM# 135, SHADS = POTH, ASHADE = BOTH, ALPHA = -0. . . EMISS=-0. 5 ΔΔ 313 314 4.4 ,դլթժո 3. .ACTIVE=TOP **TYDE=PTSL** AA 315 .AMEX= 1.02019F+02.6MTH= 0. PMINE 2.

. P.

CMAX= 4.60339E+32.NHY= 1.NHY= 1.TCSN=

cosition= 2.30937€+32, 4.

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TNPUT CAPO COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 5 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL = -9J.000J. ROTX 318 = -0. . POTY SUPPN= 122.SHADE=90TH.9SHADE=90TH.ALPHA=-0. .EMISS=-0. 319 ΔΔ TPAMS=+0. ,TRANT=+0. .COM## VFRY NOSE CONE 320 ΔΔ TYPE=PARABOLOTO.ACTIVE=OUTSTOS.ALPH= 6.133002+00 321 PMTN= 0. , 3MAX= 2.000005+82.GMIN= 0. AA 322 GMAX= 3.600305+32.NMX= 4.NNY= 1.TCSN= 323 ΔΔ POSTTION= 2.000005+02. 1. -3.00000F+01 324 ΔΔ 325 POTZ = -190.00°0, POTY = -ng.gggs. POTX **326** AA SUPENE 723.SHADTERDIH.3SHADEE8OTH.4LPHAE-0. . EMISSE-C. 327 TRANSHED. .TRANSHED. .COME* NOSE CYLINDER AA TYPE=CYLINGED .ACTIVE=OUTSIDE.ALPH= 7.00000E+01 328 ΔΔ .846Y= 1.70000E+02.6MTN= 0. 329 PMTN= 0. CM1X= 3.689885+82.NMX= 4.NMY= 4.TCSN= 330 ΔΔ 331 AA POSITION= 4.300305+92. 0. .-3.03000E+01 = -190.3330. ROTY 332 AΑ ロハエフ = -93.0000. ROTX SUPER= 346.SHADE=BOTH.ASHADE=BOTH.ALPHA==B. . .EMISS==0. 333 ΔΔ TRANS=+3. TRANT=+(. ,COM=+ 4000 PARTIAL BACK 334 335 AA TYPE=PAPABOLOTO.ACTIVE=OUTSIDE.ALPH= 7.03000E+00 8MTN= 2.603306+02.9M6X= 3.73300E+u2.GHIN= 8. 336 AA 4.TOSN= FMAX= 3.500007+02,NNX= 4.NNY= 337 ΔΔ TOSITTON# 2.00000E+02. 0. 334 AΑ , 0. 339 AA = -180.0000. ROTY = -91.9000 ROTY SUREN± 361.SHADE=POTH.BSHADE=BOTH.4cPHA==0. 340 ΔΔ TOOMS = 3. .TRANI==[. .COM=# WINDOW 341 AA TYPE=PARAROLOTO, ACTIVE=OUTSIDE, ALPH= 2.38000E+01 342 AA 343 PMIN= 1.68000E+01.PMAX= 7.68000E+01.6MIN= 0. 4 . NNY = RMAX= 3.67870E+02.NMX= 4.ICSN= 344 POSTTTOM= 3.83200E+42. 0. . 0. 345 AA ΔΔ = -183.1970, POTY = -91.1°10. POTX 346 SUPPRE 401.SHAME=POIN.RSHADF=BOIH.ALPHA= .900.EMTSS= .900 347 ΔΔ TOANS=+0. TOAMI=-C. COM=#800Y BOTTOM (FPT) 4 1 344 ΔΔ TYPE=PACTANGLE .ACTIVE=BOTTOM .ALPH= 0. 349 . AA 350 ΔΔ PMTM==1_92900F+02.8MAX= 1_C2000F+02.6MIN= 0. GMAX= 2.263000+02.NMY= 1.NMY= 1.TOSN= 351 AA ,-1.02000E+02 352 POSTTTON= 5.70*095+02, 0. 353 FOT7 = +0. . POTY = 5.3870. POTX AA SURFN= 402,SHADE=POTH,BSHADE=BOTH,ALPHA= .900,EMISS= .900 354 S 355 TOONS==0. TRANI==0. COM=#BODY BOTTOM (RFAP) 402 ΑΔ TYPE=PECTANGLE , ACTIVE=BOTTOM , ALPH=-1.25030F+32 356 ΔΔ - FMTN=+1.02030F+82.8MAX= 1.02000E+02.GMTN= 2.25000E+92 357 ΔΑ GMAY= 9,700005+02,NMY= 1,NMY= 1,ICSN= 1 358 ΔΔ 359 AA POSTTYON= 5.700185+32. 0. = -40. , 007Y = -9. , 007X350 ΔΔ SMOFM= 187.SHADE=BOTH, BSHADE=BOTH, ALPHA=-B. .EMISS=-0. 361 ΔΔ S

TOANS=+1. .TRATI=-0. .CO 4=* CMSPODC1

GM4Y= 2.48300F+22.NNX= 1.NMY=

= +ŋ, ₽Ŋ∀+

TYPE=CYLINDER: .ACTIVE=OUTSIDE.ALPH= 4.508005+01

PRSTTTOM==4.7000000+02.+7.814J05+01. 6.556005+01

SUPFAR 179, SHADTEBOTH, BSHADSEBOTH, 4_PH&==0. FMTSS==0.

.AMAX= 2.750105+02.GMIN= 3.50090E+01

= **-**98.0810. PNTX

1.IOSN= -0

THRUT CARD COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

	TPANS==0. ,TPANT==0. ,COM== 045P0002 #	369	ДД
	TYPE=CYLTHRER ,ACTIVE=OUTSTDE,ALPH= 4.51000E+01	376	AA
	GMAY= 1.460005+02,NMX= 1.NNY= 1.TOSN= +0	371	AA
	PMIN= 0. ,BMAX= 2.35000E+02.GMIN=-6.67000E+01	372	AA
	FOSTTTON= -4.7unnn=402. 7.014nn=401. 6.556005+01	373	AA
	50T7 = +0 POTY = -9J.0700, ROTX = 0.	374	ĀĀ
S	SUPEME 781, TYPT=CYL, ACTIVE=POTH, SHADE=BOTH, BSMADE=BOTH	375	AA
•	P1=23C++2C1+34+37+39	376	ÃΔ
	P2=23E10719.	377	AA
	P7=23P201.34,=64.02	378	ÃÃ
	54=+470, 201.34, =64.0?	379	ĀĀ
	FnnP=00.	340	ÄÄ
	NNX=3-MMX=3	351	ÂÃ
	ÇUA-4***** 219α UÜLo*****	392	ÄÄ
s	SURTHE 791, TYPE=GYL, ACTIVE=POTH, SHADE=BOTH, BSHADE=BOTH	383	AA
.5	r1=27c.,-2J1.34,37.98	334	AA
	62=23f _{**} +291 _* 34,+64 _* E2	385	44
	P3=23(+10319.	346	44
	^4=-47019319.	387	. ДД
	•		AA
	POND=0,1,3. NNX=2,NNY=?	33d	
		789 700	
5	COMERCE TAR TYPE TORE REPORT FOR SUBDECTION ACTIVE TOR	390	44 0
	SUPENE 301,TYPEETPAP,BSHADE=9OTH,SHADE=BOTH,AGTIVE=TOP	391	A A
	F1=23F.,1??.,+102. F2+4.,102.,+125.	392 393	AA
			A A
	**************************************	394	
	04=23[.,1 ² 2.,1 ⁹ .	39 <i>5</i>	AA
	PORT +Y STOE FRONT TRAPOZOIO*	.396	AA
_	PPOPE (, , ii ,	397	AA
\$	SURFN= 705.SHADF=POTH, BSHADE=BOTH, ALPHA= .900, EMISS= .900	398	AA
	TRANSERD. , TRANSERD COMETBODY SIDE (MIDDLE-PORT) 365 *	339	AA
	TYPE = 980TANGL	400	44
	PMTN=-1.25330E+02.6MAX= 19. ,GMTN= 2.253005+02	401	AA
	6M1X= 5.72330E+02,NNX= 1,NNY= 1,TCSN= 1	402	AA
	POSTTYON= 5.793005+02, 0	403	AA
	POTZ = -u. , POTY = -J. , POTX = 90.0000	404	AA
S	SHPEM= 306, SHADE=BOTH, BSHADE=dOTH, ALPHA= .900,EMISS= .900	495	AA
	TRANS=-1. , TPAMI=-C. , COM=+BODY STOE (BACK-POPT) 306 +	436	AA
	TYPE=PECTANGLE ,ACTIVE=TOP ,ALPH= 1.02000E+02	. 407	AA
	BMIM=+1.2500JE+02,8MAX= 19.	403	AA
	GMAX= 9.33300F+07,NNY= 1.NNY= 1.TCSN= 1	409	AA
	POSITION= 5.700005+02, 0.	410	AA
_	PCT7 = -U., POTY = -3., ROTX = 90.0000	411	44
S	SUPEN= 311.TYPE=TRAP, 9SHADE=90TH, SHADE=BOTH, ACTIVE=BOTTOM	412	AA
	P1=23「102102.	413	AA
	P?=4.,10?.,+125.	414	AA /
	73=4, +172. +19.	415	44
	P4=27(.,172.,19.	416	AA
	COME # - M STOF FRONT TRAPOZOTO#	417	AA
_	Pana=_,,0,	<u></u>	AA
S	SUPEMB 715,SUNDS=ENTH,PSHANE=BUTH,ALPHA= .900,EMTSS= .900	419	АД

INPUT CARD TOL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

```
TRANS=+1. TRANI=+0. COM=*PODY SIDE (MTDOLE-STBD) 315 *
                                                                               420
                                                                                                  AA
                                                                               421
                                                                                                  AA
       TYPE=PECTANGLE .ACITYF=TOP
                                  .ALPH= 1.02000E+02
                                                                               422
                                                                                                  AΑ
                      .846X= 1.250005+02,GMIN= 2.258305+02
                                                                                                  AA
                                                                               423
       GMAX= 5.720005+02.NNX=
                              1,NNY= 1,TCSN=
                                                                                                  AA
                                                                               424
       POSITTOM= 5.700305+02, 0.
                                       , 3.
                                            . POTX
                                                                                                  AA
                                                                               425
             = -ü.
                         POTY
                                = -).
        SURFME 316.SHADE=30TH.BSHADE=30TH.ALPHA= .903.EMISS= .903
                                                                               426
                                                                                                  ΔΔ
- 5
                                                                                                  AA
        TOANS == 0. TPANT == 0. COM= TROOM SIDE (BACK-STRO)
                                                                               427
                                                            316 *
                                                                               428
                                                                                                  44
       TYPE=FFOTANGLE .ACTIVE=TOP .ALPH= 1.02000E+02
                                                                               429
                                                                                                  AA
       PMTM= 19.
                       .9MAX= 1.250005+02.GMIN= 5.72000E+02
                               1.NMY= 1.ICSN= 1
                                                                               430
                                                                                                  ΔΔ
        CM4X= 9.34000F+02.NMX=
                                                                               431
                                                                                                  ΔΔ
       FORTTION= 5.70093E+82. 0.
                                             ∍ POTX
                                                                               432
                                                                                                  ДΑ
              = -0. POTY
                                 ≃ -].
                                                      = -90.0000
                                                                                                  AA
        SUPENE 200, SHADSEBOTH, PSHADSEBOTH, ALPHAE .900.EMISSE .900
                                                                               433
S
        TRANS=-9. TRANT=-C. ,COM=*BONY TOP (STBN-REAP) 202
                                                                               434
                                                                                                  ДД
                                                                                                  AA
       TYPE=PYLINDER .ACTIVE=OUTSIDE.ALPH= 1.02000E+72
                                                                               435
        PMTN= 7.09000F+02.9MKX= 9.39900E+02.6MIN= 2.700006+02
                                                                               436
                                                                                                  ΔΔ
                                                                                                  AΑ
        644Y= 3,600067+82;NNX= -
                              1.NNY= 1.ICSH=
                                                                               437
                                       , Q.
                                                                               438
                                                                                                  ДД
        POSITION= 5.70009F+02. 0.
                                                                                                  AA
                                                                               439
            = -G. . POTY
                                  = 9j.4äjg, RATX
        SURFM= 212,SHAGF=COTH.PSHADE=3OTH,ALPHA= .900,EMTSS= .900
                                                                               440
                                                                                                  AA
S
                                                                               441
                                                                                                  AA
       TPANS=+0. .TPANT=+0. .COM=#300Y TOP (PORT-REAP) 212
       TYPE=CYLINDER ,ACTIVE=OUTSIDE,ALPH= 1.020005+02
                                                                               442
                                                                                                  ДД
                                                                                                  AA
       PMTN= 7.79990E+32,94AX= 9.38930F+02.GMEN= 1.30000E+02
                                                                               443
       CM1Y= 2.793192+32.HMX# |
                               1, NNY=
                                       1.IOSN≃
                                                                               444
                                                                                                  AΑ
                                                                               445
                                                                                                  AA
        POSTTYON= 5.70000F+02. U.
                                       . [.
             446
                                                                                                  AΑ
        SHOSHE 386 ,SHADS=80TH,RSHADS=80TH,ALPH4= .900,EMISS= .900
                                                                                                  AA
                                                                               447
                                                                                                  AA
       TRANS==1. , TRANT=+0. ; COM=*VERTIDAL FIN (PORT)
                                                                               448
                                                                               449
       TYPE=TRAPEZOID .ACTIVE=TOP
                                   ALPH= 0.
        PMTN= 1.48470F+72.3MAX= 3.934002+02.GMIN= 3.00000E+01
                                                                               458
                                                                                                  AA
        GMAX# 4.50930E+31.NNX# 1.MNY# 1.ICSN#
                                                                               451
                                                                               452
                                                                                                  AA
       POSITION= 1.658405+37. 0.
                                      . 4.95480E+02
        POT7 '= -8. , POTY = -140.0000. POTX =
                                                                               453
                                                                                                  ΔΔ
        SUPENE 385.SHADE=POTH,8SHADE=30TH,ALPHA= .900,EMISS= .900
                                                                               454
                                                                                                  AA
        TRANS=+0. .TRANT=+0. .COM=*VERTICAL FIN (PORT-AFT) 20
                                                                                                  AΑ
                                                                               455
        TYPE=TPAPFZOID .ACTIVE=TOP
                                 , ALPH≖ G.
        PMTN= 1.48430F+02.0MBX= 3.93430F+02.6MIN= 1.50000E+01
                                                                               457
                                                                                                  AA
                                                                                                  AA
        cmax= 3.6000000+34.NNY= 1.NNY= 1.ICCN=
                                                                               458
                                                                               459
                                                                                                  AA
       ##STTTON= 1.658405407. 0.
                                       , 4.95400E+62
                                                                                                  AA
              = -€. , POTY
                                = -181.0000, ROTX
                                                          99.0006
                                                                               450
                                                                                                  AA
S
        SUPENE *90.SHADF=POTH.RSHADF=BOTH.ALPHA= .990.FMISS= .900
                                                                               461
       T#AMS=-3. ,TRAMT=-C. ,COM=+VFRTICAL FIN (STBD)
                                                                               462
                                                                                                  AA
       TYPE=TRAPFZOTO ,ACTIVE=POTTOM ,ALPH= 0.
                                                                               453
                                                                                                  AA
       ##### 1.4 #4 205+00, BMAX= 3.934305+62, GMTN= 3.180005+81
                                                                                                  ДΔ
                                                                               464
                              1.NMY=
                                        1.ICSN= 1
                                                                               465
                                                                                                  AA
        CMAY= 4.537775+71,NNX=
       FDSITTON= 1.85840E+03. 1.05037E+01, 4.95400E+02
                                                                               456
                                                                                                  AA
              = -0. , DOTY = +189.8500, FOTX =
                                                                               467
                                                                                                  4 A
        463
                                                                                                  AA
                                                                                                  A A
        TRANCHED. .TRANTHEL. .COME*VERTICAL FIN (STROMART) 20
                                                                               469
                                                                               471
        TYPE=ROADEPOID .ACTIVE=BOTTOM .ALPH= C.
```

INPUT PARD TOL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

	8MTN= 1.464375+22,9MAX= 3.934005+92.GMIN= 1.50000E+01 ·	471	AA
	rwax= 3.000375+31,NNX= 1,NNY= 1,ICSN= 1	472	AA
	PASTTINE 1.853495+13, 1.00000=01, 4.954005+02	473	AA
	PATZ = -0. , PATY = -19J.3400, PATX = . 90.0000	474	AA
S	CHOTETOS, TYPE=NTSC. ACTIVE=TOP, SHADE=BOTH, RSHADE=BOTH	475	AA
7	n1=3273572.	476	AA
•	P2= 327 + + 65 + + = 7	477	AA
	na=324.,85.,-72.	478	44
	01=324.,35.,=72.	479	AA
	E000=1.7.	430	AA
	COMER THOSE FORWARD EVAPORATOR	481	AA
•	SUPENHET LO TYPE = NTSC, ACTIVE = BOTH, BSH4DE = BOTH, SH4DE = BOTH	482	AΔ
•	ntmfpStomS=73.,0.,22.5,2.,360.	483	άβ.
	IOSH=15,PP0P=3.,0.	434	ДΔ
	CON=+STIPED FNEINS (CHS LOCATION)+Y	485	· AA
_	SUPERHETIZ, TYPEHOISO, ACTIVEHBOTH, BSHADEHBOTH, SHADEHBOTH	436	4 Δ
\$	nt 4=MSTNMS=70n22.5.3358.	487	44
	【しばがキ1 4 * o 2 O 2 + 3 * * * * * * * * * * * * * * * * * *	488	AA
	LUMEA 20055 ENCINS (OWS FOCULLOW)A	489	, ΔΔ
_	«Nowwest, Troumoisu, activamenth, chanemno, pshadementh	490	АΔ
\$	n1=-765, 134, 59.	491	AA
	n2=+765. • 134. • 62.	492	AA .
	r7=+7f7,47,134,92,	493	AA C
	£4=-767.82.132.97.59.	494	AA
	# ##= \#\{\#\\$\#\\#\\#\\#\\#\\#\\#\\#\\#\\#\\#\\#\	495	AA
	COMETBACK POSLOCKING +/- Y. (10 DEG CANT) .*	496	AA
5	SUPENETS, TYPEEDISC, ACTIVE BOTH, SHADE BOTH, RSHADE POTH	497	AA
•:		498	AA
	#1±467.5,5}.,-48.9 #2=47f.5,5}.,-48.9	439	AΔ
	c3=467.5,57.457.+47.18	500	ДД
	n4=467.5.32.457.+47.18	501	AA
	PDGD=00.	502	ДД
	now=*FPONT ROSLOOKING +/-Y AT 35 DEG. 7/23/74*	583	AA
<	SHORN=25,TYPE=0150,ACTIVE=80TH.SHAGE=NO.BSHADE=90TH	504	AΑ
•		505	AA
	\$1=-76511657. P2=-76511557.	506	AA
	P3=-767,62.118,958.63	597	. ДД
		508	AA
	04=-767, 92,118,,58.03	509	AA
	PROPES	510	AA
_	CUTEN = 16, TYPE = DISC, ACTIVE = POTH, SHA DF = BOTH, ASHADF = BOTH	511	АΑ
5		512	AA
	P1=-247,,175,,-21. P2=-247,,195,,-24.	513	AA
	· = - · · · ·	514	AA
	93=25J.,105.,=21.	515	ΔA
	P4=-25011521.	516	AA
	.UA=+***MidUfE	517	AA
_	COMENT 146 CHADEEBUTH BEHADEEBUTH AF CHAS	. 518	AA
ć	TOAMSH-(. TOAMTH-(. , COME#VEDT, FIN LOG. EDGE 2 #	519	ДД
	TOTAL STATE ANTIMETTOR ALPHE S.	520	4 A
	₽4¥##==#, "NOOUT!+NJ; R4AYY= #; BPONEF#BO; GMTN==#. SAUNOT+NO	521	ΛA

TNOIT CAPO COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 5 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

	CMAX==2.10000F+02.NMX= 1.MMY= 1.ICSM= 1	522	AA
	Parkance 10000 and accase of a contract of the	523	AA
		524	AA
	PG12 = -0.1 - 4910 - 491	525	AA ,
805	SPLAG SUPF=13CO,TYPF=CYU,ACTIVZ=NUT,ASHADE=BOTH, SHADE=BOTH	526	AΔ
٠.		52 7	AA
	100N=2]	528	AA
	- P4世中37、93、9366。	529	ДД
	P2=582.,31.5,766.	530	AA
	rT=582,.31.5,366.	531	ΛΑ :
	F4=F53.3.31.5.4u8.	532	ΔA
	9000=0.,3.		ÃÃ ·
	TOMES TUNNEL 1. X=582 TO BREAS, SPACELARZ *	533	AA
5	SUPPERIORS, TYPEROME, ACTIVE FOUTSIDE, SHADE=BOTH, BSHADE=BOTH	534	4.4
'	TOSNET)	535	
	C1 = 694.0.1470.	536	AA
	02=694.04.04.04.04.04.	537	AA
	4	538	ΔΔ
	P3=694.0,79.9,400.	539	- A A
	P4+551.54,0.,473.	540	ДД
	65=664.3,31.5.460.	541	AA
	ponp=(.,).	5+2	ΔA
	TOME + FMP COME, X=658.3 TO 694.0, SPACELAB 2 *	543	AA 9
S	SUPF=1201,TYPE=DTSC.ACTIVE=ROTH,SHADE=BOTH,BSHADE=BOTH	544	∞ مم
	₹∁ ₹₩=₹Ĵ	545	AA
	C1 = 641 C, 9 . , 456. 94	546	۵۵
	F7=691.0,3.0,456.94	547	A A
	P3=633.64,00.09,458.34		ĀĀ
	P4=693.F4, C., 459.34	548	AA
	PO O P≈ 0, . 0.	. 549 	AA
	CONTENCS CONTENSATE VENT. X=681. SPACELAB. 2 *	. 550	
5	SUPE=1971, TYOE=CYL. ACTIVE=NUTSIDE, SHADE=ROTH, RSHADE=BOTH	551	AA
,	*CSN=50	552	AA
	e4=694,(,),,470.	553	AA
	r?=694, [, 79.9, 450.	554	AA
		555	AA
	P3=694.6,70,94400.	556	ДД
	04±799,0,79,9,400.	557	AA
	PROFESO. COME* CARE SEGMENT X=694.0 TO 799.9 , SPACELAB Z*	558	AA
	COME COSE SEGMENT X=594.0 IO (39.9) SEAUCEMO C	559	- AA
•	SHORESOFD, TYDE = COME, ACTIVE=OUTSIDE, SHADE=BOTH, BSHADE=BOTH	560	AA
•	₹09N±53	561	AA
	£1=799.º0,0.,490.	562	AA
	mg=799.90,70.9,400.	563	AA
	ng= 7qq.nj, 79.9,43j.	564	ĀĀ
	r4= 05_,073,0.,430.		ÃÃ
	₽5±831,34,25.6,4 ⁰ 8•	565	AA
	PD0F=30.	565	
	TON-# AFT CONT TADER, X=709.98 TO 831.30 SPACTLAS?*	567	AA
5	SUPF=1963, TYPE=BYL, ACTIVE=OUTSIDE, SHADE=BOTH, RSHADE=BOTH	. 568	AA
י	**************************************	569	AA
	r1=91,70,6,,430.	5 7 0	AA
	P2=431.F3.e75.69400.	<u> </u>	AA
	レビニスカリスカリスでは、防み時間は多	572	AA

IMPHT TART TOL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

	P4=367.30.25.6.438.	, 573	AA
	LoOb=1**9*	574	AA
	COME# AFT ATRLOCK, X=831.30 TO 864.80, SPACELA92*	575	AΑ
S	SUPF=1965.TYPE=DISC.OCTIVE=TOP.SHADE=BOTH.BSHADE=BOTH	576	AΔ
,	TOSHER	577	4.4
	n1=841,0,0.,4m0.	578	AA
	72=367.80,25.6,400.	579	AA
•	r3=360.8r.0n.0.425.6	588	AA
	74=357.67.05.0,425.6	581	A A
	P2 00 = 6	532	44
	COM= FART ATP LOCK DISK SL2*	583	AA
s	SHEF=1073, TYPE=CYL, ACTIVE=OUTSIDE, SHADE=BOTH, BSHADE=BOTH	584	ΔA
•	TONES	585	AA
	F1=877.2,0.,4F3.	536	AΔ
	P2=973,2,7P,8,400.	537	ДД
	73=377.2,-78.8,420.	588	AΔ
	P4=987.2,-78.3.400.	539	ДД
	\$6ub=]**1*	590	· AA
	COM= + PALLETI GOTTOM CYLINDER SL2 +	591	AΑ
5	SMPF=1071, TYPF=PECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH	592	AΔ
.,	TC0N=53	593	AA 🔟
	P1=573.273.8,400.	594	AA 10
	\$2=987.2.+73.4.49u.	595	
	FR=037.2,-70.8,414.	596	AA
	₽ኳባ₽≖ ቪ••፲•	597	AA
	COM= * +Y PALLETI OUTSIDE STRIP 542 *	598	AA
S	SMPF=1372, TYOF=RECT, ACTIVE=TOP, SHADE=80TH, BSHADE=80TH	599	ΔΔ
•	10SN=50	. 600	AA
	P1=937.2.70.0.414.	601	ΔA
	P7=987,2,79,9,499.	502	AA
	DR= 977, 2, 74, 3, 403,	603	AA
	70,00 = 9,40.	634	AA
	COME * *Y PALLETI OUTSIDE STRIP SL2 *	605	AA
S	SUBSE1973, TYPEERSOT, ACTIVEET OP, SHADEEBOTH, BSHADEEBOTH	6 06	AA
-	TG9N=51	607	AA
	P1=877.2,-78.9,414.	603 ·	AA
	C7= 047.276.d.414.	609	AA
	P3= 987.2,+72.9,414.	, 610 .	AA
	p∍0c=q.,0.	611	AA
	comet-v palicit top Strip x=87%2 TO 987%2 SL2 #	612	AA
S	<pre>SURF=1G74,TYPE=REST,ASTIVE=TOP,SHADE=BOTH,BSHADE=BOTH</pre>	613	AA
	TC9%=53	614	AA
	P1=873.2,72.8,414.	615	AA
	P2=937.2,72.9, 414.	616	AA
	P3=9ò7·2·7ò·ò, 414·	617	AA
	no∩9=1.,,j.	618	AA
	COM+ # +Y PALLTT3 TOP STRIP .X= 873.2 TO 987.2 5L2 #	619	AA
•	SUPF=1075.TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	620	AA
	T09N=50	621	AA
	P1#973.2,-77.9,414.	522	AA
	£2=937.2,-72.3,414.	623	AA

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	P3=997.258.5.771.	624	AA
	DBCP=0	. 625	ΔΔ
	com = * -y instne top fannel3 .x=873.2 To 987.2512 *	626	AA
S	SUPPRISTA, TYPE = REST, ACTIVERIOP, SHADSEROTH, BSHADEROTH	627	AA .
•	7(2)=50	628	AA
	01=097.2,58.5,371.	. 629	AA
	n2=987.2.72.3.414.	530	AA
•	P3= 173.2.72.d.414.	631	AA
	pono=,,),	· 632	AA
	COME # +V INSTOR TOP PANNELS, X=973.2 TO 987.2 SL2 *	633	AA
0	SHRE#1977, TYPE# RECT, ACTIVE#TOP, SHADE#BOTH, BSHADE#BOTH	634	AA
	*C2M*59	635	AA
	P1=873.2,-95.5,371.	636	AA
	t2=037.258.5.371.0	637	АД
	c3=037.2,-74.5,344.3	638	AA
	Property de	639	AA
	COME* - V INSTOR BOTTOM PANNELS, X=873.2 TO 987.25.2 *	640	AA
5	SUPPEIONS, TYPEEPECT, ACTIVEETOP, SHADE=BOTH, BSHADE=BOTH	641	' A A
	TOSN=50	642	AA
	P1=373.2,34.5,344.3	643	AA
	P2=907.2.34.5.344.3	644	<u>سر</u> A4
	03=667,2,59.5,371.	645	AA S
	Propens, 13.	646	ΔΔ ~
	COMER AV THELDE BOTTOM PANNELS, Y 873.2 TO 987.2 SL2 #	647	- дд
5	SHOF=1879 , TYPE= REGT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH	643	AA
·	108=59	649	AA
	r1=a77,?,m74,5,344.3	650	AA
	57=937.234.F.344.3	651	, ΑΛ
	D7=007,2,74,5,744,3	652	ΔΔ
	500P= 03.	653	ΔA
	COM=*30170H PANNEL3 .¥=873.2 TO 987.2, SL2*	654 ·	ΔA
s	SUPF=1641.TYPF=CYL.ACTIVF=OUTSIDE.SHADF=BOTH.ASHADF=BOTH	65 5	AA
	T(SN=5)	65 6	ΑA
	61=087.2.0.,413.	657	AA
	02=937.2.79.8.490.	658	AΔ
	P7=957,2,-78.8,400.	659	AA '
	P4=1134,2,-79,9,403.	660	ДД
	PPOP=1	661	AA
	COM = # PALLETA BOTTOM CYLINDER X= 987.2 TO 1101.2 SL2*	562	ΔA
S	SUPF=1081.TYPE=PECT.ACTIVE=OUTSTOF.SHADE=BOTH.BSHADE=BOTH	· 653	AA
_	T09N=50	664	44
	01=937.2,-73.8,410.	665	AA
	P2=1101.2,-78.8.400.	666	AA
	P3=1101.273.0,414.	667	AA
	ProPa 3., 3.	658	AA
	COM= * -Y PALLETA OUTSIDE STRIP SEZ *	6ò9	AA
S	SUPF=1082,TYPF=PFCT.ACTIV5=TOP,SHADE=BOTH,BSHADE=BOTH	570	AA
-	ာ် ကွဲရိုမျိန်၍	671	AA
	P1=1401.2,73.8,414.	672	AA
	02=1101.2,78.8,491.	673	AA
	r=-637.2.76.8.4400.	574	AA

THOUT CAPA COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

	P2 (P= (0., 0.	, · 675	AA
	COH=* +Y PALLET4 OUTSIDE STRIP SL2 *	676	AA
S	SUPF=1003.TYPE=RECT.ACTIVE=TOP.SHADE=90TH,8SHADE=POTH	577	AA
.,	TCSN=50	678	AA .
	P1=037.2.+78.8.414.	679	AA
	P2=11j1.2,=78.8,414.	680	AA
	P3=1101.2.=72.0.414.	681	AA
•	Pnnn=0,,,0,	682	AA
	COME*+Y PALL=T4 TOP STRIP X=987.2 TO 1101.2 SL2 *	. 693	ĀĀ
_	CHRF=1064, TYPE=RECT, ACTIVE=TOP, SHADF=BOTH, BSHADE=BOTH	634	ΔΑ
•		535	44
	TOSM=53	535 536	44
	P1=037.2.72.3,414.		AA
	F2=1431.2,72.4, 414.	587	
	£3=1101.2.76.8.414.	638	AA .
	PonP=0.,0.	689	44
	COM= * +Y PALLET4 TOP STRIP ,X= 987.2 TO 1101.25L2 *	690	, AA
S	SUPF=1025,TYPE=RECT.ACTTVE=TOP.SHADF=BOTH.BSHADF=BOTH	691	44
	TCSN=53	692	AA
	P1=037,2,-72,8,414,	693	AA
	F2=1101?,-72.3.414.	694	AA
	P3=1101.2,-54.5,371.	695	سے ۵۵
	FnnPmi, , C.	695	AA 102
	CON = * -Y INSTRE TOP PANMFL4.X=987.2 TO 1191.2 *	697	AA IO
S	SUPPEINER, TYPE = RECT, ACTIVEETOP, SHAME=PATH, PSHADE=RATH	698	AA
	T0SN=50	699	AA
	P1=11^1.2.50.5,371.	700	ΔΔ
	£2=1104.2,72.3,414.	791	. AA
	P3=987.2.72.8,414.	702	AA '
	rocc=0	703	. ДД
	nov= * 47 INSIDE TOP PANNEL4, X=987.2 TO 1101.2 SL2 *	734	AA
5	SURF=1387. TYPG= PECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH	705	AΑ
_	T(cN=6)	706	AA
	91=987,2,=58,5,771,	707	AA
	P2=1101.2, -58.5,371.0	738	AA
	F3=11 ⁰ 1.234.5.344.3	709	AA
	54(5±1°*)* 54-71,7864-1447494441	710	AA
	COME* +Y INSIDE BOTTOM PANNEL4, X=987.2 TO 1101.2 SL2 *	711	AA
s	SUPF=10P+.TYPE=PECT.ACTIVE=TOP.SHADE=BOTH.BSHADE=BOTH	712	ĀĀ
3	106N=29 20-2-10-2-1-40-1-40-1-40-1-40-1-40-40-40-40-40-40-40-40-40-40-40-40-40-	713	ÃÃ
	Ft=937, 2, 34, 5, 344, 3	714	AA
	FZ=1171.2,34.5,344.3	715	AA
	·	716	AA
	C3=11u1, 2,53,5,371,	717	AA
	PROPERTY : 1 THE TOE ROTTON DANNELS W. 007 2 TO 4484 2 S. 28	- -	ΔĄ
~	COMET +Y INSTITE POTTOM PANNELA,X 987.2 TO 1101.2 SL27	718	
S	SUBSELITAGE , TYPE= RECT, ACTIVE=TOP, SHADE=BOTH, 3SHADE=BOTH	719	AA
	[^SM=5]	720	44
	P1=937.2,-34.5,344.3	721 722	AA
	P2=11u1,2,+34,5,344,3	722	AA
	13=11J1.24.24.65,344.3	723	AA
	F002= 0.40.	.224	AA
	^^!! + ↑ P&L!?T4 BOTTOM,Y= 947,2 TO 1101,7 SL2 #	7 85	AA

TNPUT PAPE PAL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

•	SUFF=1J00,TYPE=CYL.ACTIVE=OUTSIOF.SHADS=BOTH.BSHADE=BOTH	, 726 727	AA AA
	The state of the s	728	ĀĀ
	P1=1131.2,0.,440.	729	AA
	P2=1101.2,7A.8,40ü.	730	AA
	07=1131.2,-75.8,446.	· -	AA
	P+=1215 • 2 • = 73 • 3 • 43 0 •	731	
	P7 (P=0 + ,) -	732	44
	CON = # PALLETE GOTTOM CYLINDER X= 1131.2 TO 1215.2 *	733	AA
5	SURF=1991,TYPE=RECT,ACTIVE=OUTSIDE,SHADE=BOTH,BSHADE=BOTH	. 734	βA
	*C01=60	735	ρĄ
	P1=1101.279.9.400.	· 736	AA
	52=1245.273.8.434.	737	AA
	F3=+215a2,-78.8,414.	738	AA
	FD09= "	739	24
	COME * -Y PALLETS OUTSIDE STRIP *	740	AA
6	SUPP=1392.TYPF=RECT.ACTIVE=TOP,SHADF=BOTH,BSHADE=90TH	741	ДA
	TOSN#50	742	AΑ
	P1=1215.2,77.3,414.	743	ΔA
	C2=1215.2.74.49J.	744	AA
	- F3=1171.7,78.8,498.	745	AA
	FPCP= 2.,0.	746	AA <u></u>
	COME: HY PALLETS OUTSIDE STRIP *	747	AA C
S	SMPC=1393.TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	748	AA
	TOSM=53	749	ДД
	01=1151.278.8.414.	75û	AA
	F7=1715.2,-73+8.414.	751	ΔΑ
	P3=1215.2,-72.8,414.	752	AA
	PPOP=fa,fa	753	AΔ
	POM=4-V P4LLET5 TOP.STRIP X=1161.2 T9:1215.2 ₹	754	AA
9	SURF=1394,TYPE=PEST,ACTTVF=TOP,SHADE=ROTH,BSHADE=BOTH	755	āΔ
	TOS N=53	755	AA
	T1=11J1.2,72.8,414.	757	AA
	P2=1217.2,72.8, 414.	758	ΔΔ
	F3=1215.2,79.8,414.	7 59	AA
	PR rp= 1 . , j .	760	AA
	COM= # +Y PALLETS TOP STRIP ,X= 1101.2 TO 1215.2 *	751	ДД
•	SUPF=1295,TVPE=RFCT,ACTTVE=TOP,SHADE=BOTH,BSHADE=BOTH	762	4
	400M=50	763	44
	F1=1101.2,-72.8,414.	764	AA
	F2=1215.2,-72.8,414.	765	AA
	P3÷1215,2,+5d,5,371.	756	ΔA
	ronp=f.,j.	767	AA
	COM = # -Y TNSTOE TOP PANNEE5, X=1161.2 TO 1215.2 #	758	AA
5	SUPFEIGRA,TYPE = PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	769	AA
	TGCN=G)	770	AA
	01=1215.2.58.5,371.	771	AA
	C2=1215,2,72,3,414.	· 772	AA
	77=1171.2,72.9,414.	773	AÀ
	POCHEZA	774	ΔA
	COM- * +Y IMSTOR TOP PANNELS, *=1101.2 TO 1215.2 *	775	AA
S	SUBC-1807, TYDES SECT, ASTTWESTOR, SHAMESHOTH, ASHADESHOTH	776	ŭΔ
	•		

INFUT TAPO COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2745678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

	**C9N=50	. 777	AA
	P1=1104.254.5.371.	778	AA
	P2=1215.258.5.371.0	779	AA
	P7=1715.234.5.344.3	789	AA .
	Pa ne = 1 0 .	781	AA
	COM=* -Y INSTOR ROTTOM PANNELS. X=1131.2 TO 1215.2 *	782	AA
.\$	SUPF=1193.TYPE=PECT.ACTIVE=TQP.SHADE=BOTH.BSHADE=BOTH	733	AA
	TCSN=C1	784	AA
	P1=11J1.2.74.5.344.3	. 785	AA
	P2=1215.2.34.5.344.3	786	AA
	r3=1215.2.58.5.371.	737	AA
	ronpe()l.	788	AA
	CUM=* +Y INSTOS ROTICM PANNSES.X 1131.2 TO 1215.2 *	789	ΔA
٠,٥	CHEF=1739 . TYPF= PECT.ACTIVE=TOP.SHADE=80TH.9SHADE=80TH	798	AA
	70 Sti= 53	791	AA
	P1=1101.2,-3+.5,344.3	792	AA
	P2=1215,2,-34,5,744,3	793	AA
	P3=1295,2,34,5,344,3	794	. AA
	PROPE G C.	795	AA
	CON-*PA(LET 5 90TTOM,X=1011.2 TO 1215.2 SL2*	796	ΔA
·S	SUPF=1111, TYPT=DISC.ACTIVE=BOTH, SHADE=BOTH, 8SHADE=BOTH	797	س ۵۵
_	TCSN=50	798	AA 9
-	C1=746.9,7.,480.9	799	AA +
	P2=746.9,19.7,48G.9	830	AA
	93=797.2,3.,489.9	801	AA
	ru=777.2.0.4430.9	802	AA
	₽₹₽₽=1,,0,	803	, AA
	COM= * TORE SEGMENT WINDOW, X=746.9 SPACELAR 2 *	804	AA ·
S	SUPFE1173, TYPFEDISC, ACTIVE=BOTH, SHADE=BOTH, BSHADE=BOTH	805	AA
_	TCSN=5]	806	AA
	r1=315,6,J.,454,49	897	ΔΔ
	P2==11.43.0462.23	808	ДД
	P3=815.6,7.85,454.49	809	AA
	Pu= 415.6,7.35,454.49	616	44
	FROPER	811	AA
	COMER ACT VICHING WINDOW X=315.6. SPACELARS#	812	ДД

COT

SPACELAB-2 VIEWFACTOR MATRIX

The following pages contain the viewfactor data printouts for the Spacelab-2/Orbiter configuration.

HODEL = CONTAM STED = 1 FORM FACTOR CALCULATION LINK.

SHUTTLE CONTAMINATION STUDY (SPACE LARZ (RECIEVING SHUTTLE))

	′	•			•
145	FF 900 = 0.	ROW OF TIME =	2.542	► TRAP	+V REAR SIDE TAPER
: 146	FF 역11색 # 🗓 🕯	ROW CF TIME =	2.524	- 7040	- Y. REAP SIDE TAPER
797	EC CIIM = g.	POW CC TIME =	5.5A3	- DISC	JULY 8 FVAP3 IN. RAD.
708	FF SUM = 0.	ROW OF TIME =	2.201	+ MISC	JULY 8 EVAP3 IN. RAD.
147	FC CIJM = f.	ROW OP TIME =	11.396	+ PAPA9	TOP ENGIN
<u>1</u> 4,8	FF SIIM = 0.	POW OF TIME =	5.813	.+ PARAS	+ Y ENGIN
149	FE SIJM ± 1	PCW OF TIME =	5.813	PARAG	-Y ENGTH
		(* INDICATE	S NODE PAIR	HAS BEEN SUBDIVI	DED1 :
NUÚE I	HORE J COMPUTATION	FF(I,1) FE(J,T) W/SHAN W/SHAD		1,00	SHAD. A CP TIME FACTOP (SEC):

łuńe I	HONE J	COMPUTATION	MESHAD	FE(J.T) W/SH40	F4(I,J) W/SHAD	F (I,J) HO/SHAD	SHAD. F	SHAD. A	CP TIME (SEC)1
80	1076	OAL.	.GF1388	•99337A	.061383	.001988			1.194
20	1050	C11 +	.020541	.003626	020541	.025720	.931593	•931593	2.132
20	1060	CAL .	000429	.000735	.000428		1.007090		2.464
21	1055	CAI .	.307312	005960	.093712		1.000000		3.132
22	1072	DAL.	.000197	.013435	.000187		1.000000		3.860
	1073	CAL.	.010217	.001177	.100217	.000317	1.0000000	1.0003369	5.354
20		= '	, u L D x S a	001786	.gang29		1.000000		6.607
211	1074	CAL.	.u04577	10.1218	394577		1.000290		7.260
2.0	1075	CAL.	-	010265	01.363		1.003980		7.670
>0	1975	CAL.	•662369		107588	. 10.3748	1.000000	1.000330	8.337
20	10 77	CAL.	175569	*093344		001195			8.917
5.0	40.29	CAL .	•"£1835	• C00 u9e	.011335		1.070030		9.449
20	1773	CAL.	<u>.965582</u>	.232684	.305682	. C 0 5 5 4 2	1.070000	1 000000	10.133
21	1092	PAL.	- - 900611	**91421	.000511		1.070300		
១១	1083	CAL.	.0[0457	.002479	.900457		1.600003		11.426
20	1 1 4 4	CAL.	.001058	.005742	.001055		1.004330		12.568
20	10.65	DAL.	.n(a572	.035376	.319572		1.000030		17.154
24	1796	CAL.	.301060	.036752	.031760	+2013o9	1.000000	1:000000	13.532

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) to 1

*			1,7	MAILINATE	S NOOE TO	TM 45 2 32	20001	11000		
NOPE T	MOUT J	COMPHITATION	FE(I,J)		FA(I,J)	e ((,))		SHAD. A		
			CAPZVW	W/SHAD	HZSHAD	WO/5447	FACTOR	FACTOR	(\$50)1	
- 23	10.87	CAL.	.087595	.396897	.jú7595	.307595	1.000000	1.000700	14.146	
24	10 43	oni.	202740	002466	.102719	.003125	. 898975	.893935	14.732	
20	10 80	CAL .	.312723	.005002	.012723	.312723	1.009990	1.000000	15.201	
20	1092		• L5700	.bJ9625	.003789	<u>. 00</u> 3789	1.000000	1.000000	15.820	
20	₹ñ o3	GAL.	.2.3747	•ণগুৰ্থান্ত্	•956747	*J00747	1.000000	1.000000	16.912	
2 ~	1794	CAL .	6 (5946	•931715	.005846	.605946	1.090000	1.000000	17.009	•
2 n	1005	^AL.	• 015514	. 011144	.115514		1.0000000		13.39F	
2)	1198	COL.	•00771J	.332665	•017713		1.000050		19.738	
2.0	1097	CAL.	.011350	.[1 34	• 11959		1.070303		19.243	
20	1,08	CAL.	•00F44 <u>1</u>	.005847	.006441	.007351	.872652		19.725	
3.	1190	CAL.	• M 2 3 7 9 4	.011221	•123784	-	1.000000		20.122	
2.0	1115	64F*	. 5₽0004	.300013	•310004	.úCú327	•1EE613		20.594	
3.0	1111	UZ1 •	.005115	.000045	• 730315		1.00000		20.771	
5 m	1430 -	CAL.	, 1/0791	.101739	.8676 91	.265272	. 373645	• 3336°5	21.231	
20	F" oU4	= .1491	POW 08	TIME =	21.353		+ 9140	•••	Y DWS SEAL	ER
				,						
21	+ 0.30	CAL.	.001789	.000076	.001039	.001033	1.939900	1.100000	1.275	
21	1050	CAL.	.020541	.BJ3526	.120541	.122150	.931593	.931593	2.213	
21	1060	ral.	• 9E9428	.0003335	•30°438	.000428	1.000000	1.0010na	2 • F • C	
21	1955	rri.	*u63315	*) 5 0 K 0	.333712		1.050000		3.230	
21	+] *1 .	CAL.	•n00187	•973475	•00u137		1.007990		3. A98	
21	<u>1</u> 1773	↑ላ6	ספד[ים.	.001785	.00r329		1.030700		5.218	
21	1774	ዕለፍ.	.urn217	.031177	•300217		1.046333		6.703	
21	1175	· · ·	· čulike a	.090265	.022369		1.030330		7.114	
21	1976	ሶለ <u>!</u> •	• 004577	-303288	.j:4577		1.000030		7.773	
21	15 77	LVE*	.001786	•170355	.031085	.001136		907878	8.359	
71	1179	ባለቤ ፣	117689	.937744	.337698		1.000000		9.938	
?1	1279	CAL.	.005682	•9326°1	.005682		1.000000		9.559 10.208	
21	18 9 1	~ NL +	.003611	.001421	.100511		1.000000		11.416	
21	1037	CAL.	.001159	.805742	001753		1.000000		12.692	
21	1394	CAL.	.000456	.032479. .nn1762	.000457		1.000000		17.079	
21	1985	^ NL.	.001765	.]no576	-930572		1.0000000		13,659	
21	1336	CAL.	.00072 .002719	.002465	112719	.003325			14.235	
21	4007	CAL.	Ur7F05	316387	037595	*	1.000000		14.844	
21	4) 8* 1030	CAL	112723	.035302	012723		1.300000		15.310	
?1 ?1	1034	ra.,	003700	.04625	j	•	1.000000		15.691	
	1193	CAL	005846	.031716	gr5846		1.010000		16.934	
?1 ?1	1594	7 46 e	000747	004350	.000747		1.000000		10.025	
21	1395	CAL.	013715	ากลูกกร	193710		1.600700		18.769	
21	1006	nat.	.015514	211144	115514		1.000000		18.852	
?1	1097	PAL.	0 6441	015440	.036441	167391		.A72652	19.333	
21	1 n cs 3	rai.	.011950	.010343	.111953	.011359	1.000000	1.000000	19.837	
21	1399	CAL.	.023734	.311221	.023784		1.000000		20.229	
1.	/ /	- •	· ·							

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

NOTE J	COMPUTATION		FA(T,J) W/SHAD	F (T,J) SHAD. E WO/SHAD FACTOR	SHAD. A CP TIME FACTOR (SEC):
4440	CA: a	.00004 .000813	.000004	.000027 .155613	.155613 20.F10
1111	CAL .	.00001F .000045	.000015	.000315 1.000000	1.000000 20.895
1130	GAL.		.431.099	.000272 .331520	.331520 21.405
FF SUM	= .1491	POW OR TIME =.	21.476	+ 0150	+Y OWS SEALER
FF SUM	= N.	POW OF TIME =	1.703	. - Rहत्ता	BACK RECT 7.35DEG
FF SUM	= 0.	BUM CO JIMË =	1.950	+ nisc	REAR END HALF DISK
ck clin	= 0·	GUM CD TIME =	2.210	+ DISC	BACK SIDE EVAPORAT, UPDATED
F/F SIIM	= 0.	ROW OF TIME =	2.202	+ DISC	REAR END EVAPORATOR
F# 5UM	= 0.	ROW CP TIME =	32.034	- TPAP	LEFT FPONT WING A
1030.	CAL .	.000204 .000155	.000274	.000739 .853585	•85°585 •824
FF SHM	= .0003	POW OF TIME =	6.578	+ TPAP	LEFT MIDDLE WING BACK.B
FF CIIM	= 0.	ROH OF TIME =	12.727	+ RECT	BS INNER WING
1933	net.	.ecu144 .nno121	.099144	.000180 .861353	.801353 .715
FF SIIM	= .0001	ROW OF TIME =	4.653	+ RECT	LEFT BACK RECT. WING C
FF CIIM	= 0.	ROW OF TIME =	4.514	+ RECT	INNER WING C
	11:11 11:30 FF SUM FF SUM FF SUM FF SUM 10:30 FF SUM 10:30 FF SUM FF SUM	1110 CAL. 1111 CAL. 11170 CAL. 11170 CAL. FF SUM = .1491 FF SUM = 0. 1030 CAL. FF SUM = 0. 1030 CAL. FF SUM = 0. 1030 CAL. FF SUM = 0.	## ## ## ## ## ## ## ## ## ## ## ## ##	######################################	11:0

(* INDICATES NONE PATO HAS_BEEN SUBDIVIDED) +

	•		(A TalisTich	1 - A MOVE NO	, w 10H 2 -0.	C-1 30.1021	
400c I	HOUE 1	COMPUTATION	FF(I,J) FF(J.I W/SHAD W/SHA	FA(I+J) O WEHAD	F (I,J)	SHAD. E FACTER	SHAD. A CP TIME FACTOR (SEC):
13	FF SIJM	= 3.	אים אנותב =	3.69 ^{<}		+ TOAP	LEFT WING TAIL EDGE
1	FE SUM	= 0.	QNW OD TTUE =	34.857		+ TR&P	FRONT HING TRIANGLE RT.A.58
,	4239	CAL.	.393704 .38015	5	.003239	.853585	.853585 .771
2	EE CHM		BUM UD LIME =			- TPAP	HIDDLE HING TRAP, RT 8
16.7	FF 911 4	= •••	BOM CD TIME =	12,977		+ PEFT	g +y PECTANGLE WING
3	1030	_ gat »	.000144 .00012	1 .000144	.000180	.801353	.901353 .734
3	EE SHH	= .4001	ROW OF TIME =	4.705		- RECT	BACK WING REFT. PTC +129
144	รค _. ๓บฟ	= 0.	ב ארד ב אף שקם שקם	4,623		- RECT	INNER WING C RECT
. t ,	FF SUM	= ?•	aOM Co aine =	3.739		- TRAP	WING TAIL FLAP RT 1453,1507
1 5 N	1230	naL.	.909951 .90982	7 .000051	.203351	1.100000	1.700000 1.689 1.600000 2.904
150	1,5 70	r 1.	.703493 +00349	0.0000	, ng j j46	4 000000	
150	10.72	CAL.	.00363 .00363	0 4075040 3 06440E	. [44185	4_0300350	1.000000 14.774
150	1939	CA1. •	,9441°5 .947°9	17 • 1444.72 17 • 1044.40	001319	1.000000	1.0000)0 16.590 *
150	1957	CAL .	.071310 .0719F .430157 .42737		• 470157	1.000000	1.00000 69.539 *
157	1000	CAI.	.43:157 .49737 .1!6157 .29386		- 716158	1.000000	1.603000 74.150
157	199° 199°	08L+ ′ 08ۥ			034435	.146972	.146972 70.530
1 50 1 50	.1 °9″ .1 °9″	n.	.002033 .02000		. 726519	.110619	.117519 82.615
						- CMIN	BAY AREA CYLINDER
150	ЕЕ दंशिल	± .501?	SER US TAME =	43.961	:	- CAFM	ANT MACA STEAMSEN
151	+130	TAL.	.003456 .00124	. 200456	*Կեն ⁴ են	1.000000	1.00036 .932
151	10"	fal.	.2644F7 .26275	264467	. 264467	1.630099	1,03350 29.868 *
191	17.72	C 4.	·#10337 -117634		.517437	1.070000	1.000000 35.631 *
1.51	1080	nat.	#4(6454 .4 ⁶⁷⁹⁷	11 .4"645%	406454	1.010334	1,677,070 93.734
• 61	1382	nst.	- 1717)832643A		117137	1.300000	1,033393 95,315
4 F +	, ,	* *! .	- "Parason "Masaas	4	4 - 1 - 1 - 1 - 1	1.553169	4.67.877 (411.475)

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

				(110 100 - 1		1		-,,		
אסמר ז	HORE J (MOITATION	F°([.J)	FE(J,*)	F4([,J)	F (T,J)	SHAD. F	SHAD. A	CP. TIME	
			コノミエムロ	MNZHVU	ガ ヘとよびひ	MUNZAVO	FACTOO	FACTOR	(850) (
151	1192	Cal.	•)r)a5E	. 16793	.)^u3>F	.960 455	1.500000	1.009300	112.959	•,
151	FE 3114 :	.7157	304 CE	TIME =	117.343		- CYLM	BAY	ARFA CYLTN	りさら
152	1376	CAL.	.23377ª	.125970	.23P778	• 2347 ⁷ 8	1.650990	1.000000	16.691	*
153	1650	^41 .	•120567	·16*#54	.1205.7	.13°769	4922737	.922287	30 + 337	•
1 52	1757	CAL.	• 12+4 05	.144275	.]26403	. ^ 75518	. KA5751		31.991	
152	ተማድመ	L 7 L *	11.4540	.158119	· 14263	.004799	.899778	. 269734	32.354	
152	4079	CAL.	145465	.194665	135067	.195359	1.000013	1.001030	51.530	*
152	1272	C*L.	.067101	.124743	.017101	•	1.0000070		55.722	
152	15.75	tial	.007703	.041399	. 737766	.025151	204324	.294924	57, 549	
157	10.77	ral.	ようりゅううち	**13.3	,014555	.016930	259377		59.396	
15?	1379	^AL.	•503376	*92151	• 11E4 6	.0.7197			59.610	
157	1 u º 7	C41. •	.90139F	.071054	.00139#		1.,01041		59.911	
152	40 02	^*L.	.C(J197	."31547	•91(137		1.000000		62 + 324	
1 52	1235	C16.	1771118	•35844F	.0011A2	. 13537E	•171°96	.171896	67.731	
152	1.337	616.	.)[^579	.107e87	* }] 75.76	.103370	157796	.153396	F1 • 231	
1.52	1797	r.,	.012104	•100163	.007154		1.000000		61.768	
152	1002	71L.	-3 CUT14	.021247	.390914		1.065770		52.132	
1.52	10.95	CAL.	.300147	*363ac=	-3-6157	#86130E	.02425	.192429	43.677	
152	1137	CUT.	. 100)60	• 90 95 51	• 40039a	07295	.201119	.201118	65.544	
152	EE CIJH =	.5072	phy no	ilms =	65.328		- CAFM	344	APFA CYLIN	DEG
<u> </u>	1 3-00	TAL.	.142973	.210363	.142973	·167338	. 912576	ACG550.	1.598	
153	1220	nat .	.11575"	. 1 7 7 7 8 7	.116390	.110765	.932526	.983526	16.720	•
153	1201	مە ر.	•77017	.017359	.000017	• 200221	.070642	.074592	19.714	
157	ز ۶ ز ز	<u>ሮላይ</u> "	. 274773	+118157	.224F78	. ? 24) YA	1.070000	1.000000	31.533	
153	1270	CAL.	.540354	•0.0355	•9º0354	• ԻՐԸ3 ^Ի ն	1.000000	1.000000	32.163	
1.57	1172	CAL.	.jrr.3°	.831555	.001332	.0000332	1.000000	1.000000	32.642	
153	4 2 8 2	CAI.	. 000073	.[ŋçr=a	.330373		1.000000		33.774	
157	43.49	CAL.	• 5 000 0 0 7	.007116	******	• n Ju 3 3 7	1.000300	1.050000	34.202	
157	1000	516.	.019027	.363727	<u>. 395827</u>	.000027	1.000700	1.00000	15, 539	
157	1:32	car.	•100102	.000U39	.116.15	.0000008	1.000003	1.0000000	35.984	
153	FF SHM =	.4350	SUM CE	राष्ट्र	49.133		- CYLN	944 /	ARFA CYLIN	0 ER
								-		
154	1030	TAL.	.963351	.002027	.405451	•	1.000000	-	1.166	
154	10.70	CVF.	• 01.746E	.]41495	•696493		1.000000		2.993	
154	1071	CTL.	.573346	. 703970	.733466		1.010130		3.793	
1 54	1 = ≙ចំ	CAL.	. 1441 PS	*46.42.30	.7441 25		1.000000		14.994	•
154	10020	C46.	. 1/1317	3031363	.231dt7		1.000000		16.731	•
174	1-21	<u>ሮ</u> ለር.	4473457	* 427279	.43F157			1.099990	69,432	4

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

			•							
NOOF I	NODE J	COMPUTATION	FE(T.J)	FE(J.D)	FA(I,J)	F (I,J)	SHAD. E	SHAD. A		
ACC 2			MACHVU	W/SHAD	GAHPYM	CAHSTON	FACTOR	FACTOR	(SEC) 4	
154	1091	PAL.	.016158	.283866	.116154	.016158	1.000000	1.000,000	74.184	
154	10 วิธี	^AL.	.005355	.023064	.005355	.076435	.146972	.146972	79.597	
174	1998	G^L.	.0(2933	.023397	102933	.326519	.110619	.117619	82.639	
•		•						0.17	AREA CYLIN	nen
1=4	CE COM	= .5°12	Þ 0M CÞ	TIME =	97,946		- CAFM	BAT	AREA CILIN	UER
455	1030	OAL.	.500456	.000240	.000456	.กกรนจัด	1.050900	1.000000	. 979	
15=			264467	.26?753	264467	264457	1.000000	1.000000	30.653	*
155	10.70	CAL.	.010337	.175340	.010037	116137	1.000300	1.0000000	35.963	*
155	1071	CAL	416454	403871	4.6454		1.070000		94.743	•
155	។ កំណាក់ ************************************	CAL.	-	-264986	.01F083		1.000000		99.345	
155	19 91	CAL.	.115183		-018223		1.000000		112.894	
155	1003	CAL.	.018229	. 18111	.0000255		1.00000		113.961	#
155	1391	Cal.	<u>. 600 955</u>	.015783	*050422	• "188375"	Technologic	1000000	110000	
155	EE SUM	= .7157	₽OM C¤	শরুপর্#	118.097		- CAFA	BAY	AREA CYLIN	BER
				437070	220770	274770	1.000000	4.7683868	16.590	
156	1030	CVI.	.234770	125978	.238779			925424	30.407	*
155	1756	~4L.	1255 36	.167439	.125536	.139596		.685706	31.879	
t =6	1060	CAL.	.024279	.143456	024279	. 775498		-	32.247	
- 156	1 ^ 5 5	ሮልቢ 🔹	.304268	.058119	.074268	.054799		.889338	50.894	
1.56	10 Pu	GAt. •	•1 <i>6</i> 5369	·1 445.55	.185369		1.003000		55.495	
156	1071	CAL.	.107131	124743	.337171		1.200900			•
156	10.75	SAL.	•007334	•041099	.007333	.125,51			57,449	
158	1 7 7 8	* nat_•	# P 9 4 5 5 F	.031237	. 174555	.016336			59.264	
155	1779	00-	•106876	.003123	.196875	.307197		121750	59.428	
156	∻≙ୟମୁ	CAL.	• @0139 <i>5</i>	.001088	.001005	• ú[1]95	1.090090	1.033330	59.728	
155	1.31	CAL.	•305107	.001947	•3u9137		1.030030		50.082	
155	1336	CAL +	#SF1132	•976415	.031122	.186375			50.688	
156	1009	CAL.	.0()575	• 003097	.002533	.003579		.159786	61.594	
156	4) 9)	CAL	100164	.gg2163	•0001F4	.300164	1.360008	1.000000	61.578	
1=6	1991	CAL	.000014	.350247	.000014		1.033030		61.957	
156	1096	CAL.	.000167	.000975	.ემე167	4001835			62.569	
155	1134	TAL.	.003057	.001261	. <u>196057</u>	* Juū 3d 2	• 1 93644	•197544	65,353	
156	EE 9114	= .6020	BUM CO	TIME =	65.632		- CAFN	BAY	AREA CYLIN	IDER
			•							
157	1359	* A L .	.142621	.217826	.142621	150357			1.592	
167	1020	mal.	.123311	•179342	.123511	. 124355				#
157	1211	CAL.	.078817	•017753	.013017	בנותה. •				_
157	1030	ΛAĽ.	.284374	-11°157	.274678			1.900050	29.292	*
157	1070	CAL .	.000354	.000352	# 00007F4	-		1.603339		
157	1) 71	CAL.	.300332	.039555	•100032			1.000000	30.245	
157	1000	cat ,	.000379	• ^111179	•339079	.000179	1.030900	1.000038	31.529	
	-	-								

INDICATES NOTE PAIR HAS BEEN SUBDIVITED) 1

				2000 (3-41)						
NODE I	NO DE J	Сомритаттом	FE(I.J)	FE(J.7)	FA(I,J)	F (T ₁ J)	SHAD. F	SHAD. A	CP TIME	•
.40. 1	14.77.		W/SHAN		HISHAD	HOISHAD	FACTOR	FACTOR	(SEC) #	
. 157	1231	CAL	. 9 0 0 9 0 7	.000116	0.00007	.000307	1.099060	1.000000	31.914	
157	4.093	CAL.	000027	.0001127	.003027		1.000000		33.313	
157	1093	CAL.	000002	.000039	500005		1.090000		33.720	
1.7	7127	. # .	•			••••				
157	FF SUM	= .4902	RCM CP	TIME =	38.000		- CYLN	BAY A	REA CYLINDS	ER
140	1950	cat.	*024399	.337781	.124299	.124299	1.000000	1.000000	1,599	
142	1767	CAL.	.9/3112	.000768	.000112	.000112	1.000000	1.000000	1.891	
140	1265	ont.	<u>. nt 7783</u>	•767054	.053783		1.900000		2.831	
140	1077	646.	.0000#5	.202647	.000055		1.010330		3.420	
1.40	1174	TO A L .	. €03348	.002311	.005543		1.000000		3.406	
1 40	1175	Cat.	.302416	.315289	•302416		1.030308		4.225	
140	1075	CALL	•5[2408	.515278	•992498		1.999330		4.643	
1.40	1277	CAL	.011369	.014927	.331869		1.300000		5.077	
1.40	1978	ያለኒ •	.Cr1373	• r 1 49% ()	.701973		1.969000		5.511	
1.40	1079	C11.	,013297	• [1332]	.863267		1.000000		5.851	
1.40	1933	CAL.	.00185	.003852	.000185		1.000008		6.423	
140	13 94	OALL	.000137	.096527	.000137		1.000000		6.761	
1 45	1795	Cal.	.0(7173	• 0.453R4	•007173		1.000930		7.154	
140	1386	ra <u>.</u>	•107965	• (44699	#B37065		1.000000		7.587	
140	19 97	~ 1 € •	<u>. 16555</u> 6	. 744721	• 005E50		1.0007300		8.084	'
147	ተባጸዋ	5 W.	. €{5610	.n443f1	.035610		1.000000		8.574	
143	1930	012 ·	•009626	*6.30ödd	-179626		1.000300		9.266	
140	1793	ሰላይ.	.301177	.356251	.001177		1,000000		10.653	
140	40.04	rat.	.901174	.056120	.031174		1.000000		11.748	•
140	1995	GAL.	. 924380	.154256	• n2433û	.024339	1.000000		14,466	
140	1996	ርለር.	.123765	.150759	.923765	•°27931	.993348	.993]48	17.169	
143	1097	CAL.	.018489	.147659	018449	.019727		. 937253	20.212	
1.40	1099	CAL.	·?18714	•145456	.019214	.013474	.988327		27.242	
140	1199	CAL.	. 335641	• 1480 de	.035541	.075945			25.704	
140	1130	CAL.	•argugā	.015271	.030390	· 100274	.330461	.330461	27.812	
140	FF SUM	= .1987	RCM CP	TIME =	27.891		+ 0150	END	BAY AREA	DISK
4.75		CAL.	.105990	.188734	.105990	.185390	1.000090	1.000000	13.448	*
135	1970	04L.	128749	.119425	128749	168549	.763417		19.795	
175	1020		.009364	074450	000064	360000	710215	-	20.308	
175 135	1200 1131	GAL. GAL.	069367	011233	.030067	.000378	079708		28.579	
1 3 7	TEST	*7 4 6 6		# O Z Z Z J G			32			
135	FF SUM	= .2349	ROH CP	TIME =	28.585		+ DISC	FPON	IT HAY AREA	DISK

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

NODE I	נ החסיי	MOLTATUSMOS		FF(J.I) W/SHAD	FA(T,J) DAHZ\W	F (I.J) SHAD. E WO/SHAN FACTER	SHAO. A OP TIME FACTOR (SEC):
122	FF SUM	= 9.	POW CP	TIME =	2.750	+ PARAR	VERY NOSE CONE
123	FF SHW	± ",	PCW CP	TIME =	2.724	+ PARAB	VERY NOSE CONE
124	EE GIÌM	= 7.	aD Mua:	TIMS =	2.725	◆ РАЯАЯ	VERY NOSE CONE
125	FE 2{14	= 9.	⊳ዐ₩ Ç₽	TIME =	2.699	+ PARAB	VERY NOSE COME
ניג	FF ९ ∪₩	= 0.	POW CP	TTME =	1.642	+ CYEN	'NOSE CYLINDER
721	EE GIM	= 0.	୧୦୩ ଅବ	TIME =	1.646	+ CYLN	NOSE CYLINDER
722	CE SUM	= 9.	PCH ^F	TIME =	1:638	+ CYLN	MOSE CYLINDER
3.53	FF SUM	= 9.	ବର ଜନ୍ମ	TIME =	1.631	+ CATH	NOSE CYLINDER
774	FF ⟨UM	= O•	ROW CP	TTME =	1.642	+ CATU	NOSE CALINDER
775	EE GIIM	= 9.	CROW OF	TTME =	1.638	+ CYLN	NOSE CALINDER
326	FF SIIM	= 0.	ROW DP	TIME =	1.641	+ CYLN	NOSE CYLINDER
द्रश	FE (114	= 3.	bUH ce	* 5 41*	1.639	+ CYLN	NOSE EVLINDER

(* INDTCATES NODE PAIR HAS BEEN SUBDIVIDED) :

			• •	· · · · · · · ·				
NOUE I	ע פתמיו	COMPUTATION	FF(I.J) F	E(J,I) W/SHAD	FA(I,J) W/SHAO		SHAD. A TOP TIME FACTOR (SEC):	•
324	FC SUM	= 0.	60m cb 11	4E =	2.276	+ CYLN	NOSE CYLINDER	
729	FF SUM	÷ 0.	ROW OP TT	ME =	2.257	+ CYLN	NOSE CYLINDER	
330	FF SHM	= 0.	PCM OF TI	ME =	2.259	+ GYLN	NOSE CYLINDER	
731	FF SIIM	= 1.	אָר יין אוּטּבּ	ME =	2.253	+ CYLN	NOSE CYLINDER	
*32	FE 연변	= 8.	ବହାଳ ଜେମୀ	4 ₽ =	2.253	+ CYLN	NOSE CYLINDER	
यु रह	EE clim	= 0.	RCH OF TI	ME =	2.244	+ CYEN	NOSE CYLINDER	
734	ድድ ዓ ሀሣ	= ¶.	₹0% CP TT	₩ # ≖ ·	2.239	+ CYLN	NOSE CYLINDEP	
3 35	EC SIIM	= 0.	RCW ÖP TI	ME =	2.239	+ CÝLN	NOSE CYLINDER	
340	EF SILM	= 9.	RCH CP TT	M루 =	2.716	+ PARAB	HODD PARTIAL BACK	<
341	FF 904	= J.	. SUM Cα 1I	ME =	2.722	+ PARAB	HOOD PARTIAL RAC	K
₹42	FF SUM	· = 0.	ROW OF TI	MF =	2.729	+ PAPAB	HOOD PARTIAL BAC	Κ
343	EE SHA	·= 11.	RCW CP TT	4E =	2.713	+ PAPAR	HOOD PAPTIAL BAC	Κ

(* INDICATES NODE PATE HAS BEEN SUBDIVIDED)4

NOOF I	MOus 1	COMPUTATION	FE(I,J)	FE(J,T)	FAII.J) W/SHAD	F (T.J) SHAD. E HO/SHAD FACTER	SHAD. A CP TIME FACTOP (SEC):	•
344	Fr SUM	= Ū •	RCW CP	TIME =	2.744	+ PARAR	HOOD PARTIAL	BACK
745	ይ ድ ረ ፀጣ	= 17.	<u> </u> ዩዮክ ርወ	TIME =	2.714	BARAR +	HOOD PARTIAL	BACK
746	FF SUM	= ŋ.	ይኮW ርወ	TIME =	2.727	+ PARAS	HOOD PARTIAL	BACK
347	EE GIIM	= 0.	ዊ ቦ₩ ሶመ	TIME =	2.721	+ PARAB	HOOD PARTTAL	PACK
349	EE GÜM	= 0.	40W CP	TTME =	2.724	+ PARAB	HOOD PARTTAL	BACK
349	FF SHM	= n	BOM CB	TIME =	2.715	+ PARAB	HOOD PARTIAL	ВАСК
35 n	EF SHA	≖ ? •	au Mua	TIMS =	2.719	+ PARAB	HOOO PARTIAL	BACK
751	EE CIIM	= 9.	POW CP	TIME =	2.723	+ PARAB	HOOD PARTIAL	ВАСК
352	EE ŠIIW	= 0.	ዓ ባ₩ ር₽	***** =	2.690	+ P4R4R	HOGO PARTIAL	BÄCK
₹53	FE CIIM	÷ 0.	√ ⇔∪M c≥	TTME =	2.693	+ PARA9	HOOO PARTIAL	3 ACK
यद्य	FF SHM	= ^.	ROW CP	Tįų⊏ ≖	2.705	+ PARAB	HODO PARTIAL	BACK
755	FF SUM	≖ Դ•	904 6 5	1145 =	2.700	+ PARÁS	HOOD PARTIAL	BACK

116

(* INDICATES NODE PATR HAS BEEN SUBDIVIDED) 1

			•	THOTOTALL	3 111102 11	, ,		
NODE T	ע דטמא	COMPUTATION .	FE(I.J) W/SHAD	F5(J,I) N/5HAD	FA(I,J) W/SHAN	F (T,J) MOZSHAD	SHAD. E FACTER	SHAD. A CP TIME FACTOR (SEC) #
350	БЕ СИМ	= 0.	30H CB	TTME =	2.729		+ PARAB	нтивон
361	EE 6114	= n.	ବ୍ୟ ୪୬ବ	TTME =	2.710		+ PARAB	мтиопу
*67	Ег сим	= 0.	40M Lo	114ë =	2.713		+ PARAB	HOONIR
3 63	EE SHH	= 3.	≼UM C□	TIME =	2.737		+ PAPAB	HINDOH
364	FF CUM	= 0.	BÙM ÇB	TTME =	2.719		+ PARAS	WINDOW
35≈	FF SUM	= 0.	ዲሰሠ ር ዞ	TTME =	2.713	•	• ₽ \$₽\$9	HODON
*46	te clin	= n.	പില് പ്ര	TIME = .	2.703		+ PARAB	HOCHIN
*67	CE CHM	= 0.	୧ ୧% ግድ	liac =	2.729		+ PAPAB	WOONIW
368	FE 6114	= 0.	, aum Ca	TTMF =	2.723		+ PARAB	MODNIM
₹हव्	FF SUM	± 0•	, BOM Cb	TIME =	2.722		+ PARAB	HOON
370	FF SUM	= 0.	- ୧ቦ₩ ሰ₽	TIME =	2.721		+ PARAR	ноомтн
771	FF SHM	= 7.	ROW CP	TIME = +	2.724		+ PARAB	ноом

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

					·			
N00° I	моот Ј	COMPUTATION	FERI, J) F W/SHAD	W/SH10	F4(1,J) W/SMAD	F (I,J) SHAD. E WO/SHAD FRCTSP	SHAD. A CP TIME FACTOP (SEC):	
₹72	FF CIIM	= 0.	ROW LD I	[ME =	2.72)	+ PARAP	HINDOH	
373	EE CIIM	= N.	aum Cb ‡]	(M# =	2.711	+ PAPA8	MINDON	
374	FF SUM	= 0.	POW CP TI	r 4 E =	2.706	+ PARAS	HINDOW	
375	FF SUM	= 0.	Към Съ Т.	TMF =	2.736	+ PARAR	WOCNTW	
491	ድድ ረፀሓ	± 0.	ROW OF TI	IME =	1.757	- 9501	800Y 80TTOH (FRT) 4 1	·
472	Ec din	± 9.	ኮርሣ ር ዮ ፕ	TME ≖	1.509	- RECT	BOOY BOTTOM (REAR) 402	
192	EE SHW	- 0.	ROW TH T	IME =	1.995	+ CYLN	0M5P00C1	
172	EE CIJM	= ^.	90W FP T	IME =	1.981	+ CAFN	OMSPOOC2	
781	CE CITY	≠ 0•	POW CP T	IME =	2.242	- CAFN	* SIDE GOOR	
782	EE SIIM	· = 0.	CPON CP T	TMF =	63.077	+ LAFN	+Y SIDE DOOR	
783	FF SUM) = 1.	ROW CP T	TMR =	2.241	- CYLN	Y SIDE DOOR	
7 R 4	42 حالم	· = • • .	SUM LD 1	IM¢ =	33,689	+ CYLN	+Y SIDE 000R	,

(* INDICATES MODE PAIR HAS BEEN SUBDIVIDED)

			f. Tun	TORIES MONE A	414 MM 1 BE M 300071		
און אין ד	HIDRE II	COMPUTATION		J,T) FA(I;J) SHAN W/SHAN	F (T,J) SHAN, E WN/SHAD FACTER	SHAD. A CP TIME FACTOR (SEC):	
785	EE 6()4	= 3.	POW PP TTHE	= 5.874	- CYLN	+Y SIDE DOOR	
796	FF SUM	± n,	ROW OP TIME	= 14.923	+ CYLN	SIDE 000R	
787	PE SIIM	= 7.	KUM CO TIME	= 4.974	- CYLN	+Y SIDE NOOR	
788	te clim	= 0.	ROW OF TIME	= 3.557	+ CYLM	****** SIDE DOOR*****	
791	אוויס חח	= 0.	OUM CE TIME	°≖ 6.055	- CYLN	Y SIQE DÒOR	
792	EE SHW	= 0.	KOM CE TIME	= 12.005	+ CYLN	Y SIDE DOOR	
793	EF SUM	≖ ∏•	POW CP TIME	= 4.879	- CYLN	Y SIDE DOOR	
794	ድድ 	= C.	SUM UE IIME	`= 9.620	+ CYLN	V SIOT DOOR	
795	Ec ciin	= 0.	ROW OF TIME	2.174	- CYLN	Y SIDE DOOR	
795	1050	cat.	.nesauu •01	17432 .012990	.019128 .156310	.156310 1.741	
796	1073	CAL.	1003443 .00	7218 .009443	.064113 .131639	.131689 8.90 <u>8</u>	
796	4572	CAL.		2477 .016598	.020747 .904828	.8C4R28 24.103 #	
736	13 00	CAL.		7193 .027129		.246637 34.816 #	
704	1942	rat.		5562 .0714F8	.075371 .896978	.995978 51.513 F	
796	1095	CAL.		023609		.219654 64.308 *	
7 77	11.92	CVF.		1400 .332511	175110 .900354	.001358 81.288 #	
796	1005	CAL.	-	1373 .3,7426		.101409 83.441	
796	4 7 9 7	646		10903 .431600	• • • • • • • • • • • • • • • • • • • •	. 74210 A5. 908	
726	1130	0 1 L	* · · · · · · · · · · · · · · · · · · ·	14541 .000037	· · · · · · · · · · · · · · · · · · ·	.232745 87.678	
7 - 70	La J'	77 NG 6			• • • • • • • • • • • •		

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED):

NOD" T	۲،002 J		FE(T,J) FF(J,T W/SHAP W/SHA			SHAD. A CP TIME FACTOR (SEC):	
796	FE SH4	= +1,471	ROW OF TYME =	37.777	+ ČÝLN	Y STOE DOOR	
797	FF SUM	= 0.	ROW GO TIME =	2,171	- CAFM	Y SIDE DOOR	
798	1000	CAL.	.c25169 .03307	78 •025169	•049366 •509842	.579842 1.475 *	
704	1623	CAL.	.021169 .02653	22 .021169	• T4C120 • 527646	.527646 5.046 *	
~35	1201	nal.	erjng4 .ne356	67 .0000034	.000162 .067295	.067295 5.683	
798	£030	CAL.	.155255 .32557	16 .055255	.149726 .369037	.369037 9.401 *	
~9e	រូកក្	CAL.	.J20193 -02317	76 .120197	.047709 .461974	.461974 12.429 *	
718	4160.	mal.	.107245 .07594	41 .Un7245	.012513 .578808	•578808 12• 75 9	
794	10.70	DAL.	.311161 .33954	42 .011151	.046+69 .240139	.24J139 17.553 *	
779	1372	CAL.	.312452 .19523	39 .012452	.014585 .847898	.647895 28.897 *	
798	1,75	ra	.001589 .00749	94 .331509	.914351 .113122	.113122 29.856	
708	1077	CAL.	.002377 .01224	42 .017077	.012320 .169978	.169938 30.507	
793	1242	CAL.	.000196 .00149	F5 .7u3496	.800162 .594398	.594390 31.616	
7.38	4535	036.	.600557 .90311	i∈ .gr0667	.004317 .138430	.133438 32.374	
7 98	1037	C^1. •	. erjuar . narar		.129758 .129758	.139753 32.862	
709	1392	246	`.joJj13 .ngn19		.050322 .560191	•560191 34 • 159	
7134	t na=	ተለፈ.	.000166 .00077		.0.1537 .107670	.197670 34.711	
790	1130	CVI.	.50038 .03498		.000122 .262133	.262133 36.236	
778	בב מווא	= .1 E 7 R	POW OP TIME #	36.529	+ CYLM	Y SIDE 000R	
		•				•	
701	FF SHM	= 0.	ROW OF TIME =	2.190	+ TOAP	+Y SIDE FPONT TRAPOZOID	
					e e	. ·	
345	FE SIIM	= 0.	ROW OF TIME #	1.447	+ RECT	BORY SIDE (MIDDLE-PORT)	305
₹96	FE SUM	= 0.	POW CP TIME #	1.438	+ RECT	BODY SIDE (BACK-PORT)	306
*11 319	1020 1130	CAL.	.009360 .00993 .029929 .01663		.167994 .093576 .249933 .118148	.093536 7.652 * .118148 19.217 *	
311	FE SUM	= .0359	ROW CO TIME =	24.174	- ToVo	-Y SIDE FPONT TRAPOZOID	

(* THOTCATES NODE PAIR HAS BEEN SUBDIVIDED) :

NOOF NOOF COMPUTATION FS(I, J) FA(I, J) FA(I, J) FA(I, J) SMAD. SMAD				(*	TNOTCATE	S NOOE PA	ID HAS BE	EN SOBDIA	ADEU) :		
TIO FE SIM = 2.	NOOF I	MODE 1	поментаттом	FE(I.J) W/SHAD	FF(J.T) W/SHAD	FA(I,J) H/SHAD	₩ (Ţ,J) ₩0/8440	SHAD. E FACTER	SHAD. A	(SEL): Co LIWE	
716 FF SIM = 0.	31°	EC CHA	= 3.•	ROW CP	TTME =	1.531		+ RECT	ფეუ∀	SIDE (MIDDLE-STED)	315
742 FF SIM = 0. ROW OP TIME = 1.902	71 ô	EE CIIM	= ?.	≾OM ∪b	राम्भम् ≖	1.598		+ RECT	400¥	SIDE (SACK-STBD)	316
Table 1030 Cal. CGu375 Cal. CGu375 Cal. CGu375 Cal.	5 û 5	FF CHM	= 3.	oun Co	TTMC =	1.909		+ CYLN	900 8	TOP (STED-REAR) 202	?
THE CAL. 0.00328 0.00240 0.00162 0.00162 0.00263 0.000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.00000000	?12	בב לנוא	= 0.	ROW CP	TTME =	1.902		+ CYLN	9008	TOP (PORT-REAR) 218	2
THE CAL. 0.00328 0.00240 0.00162 0.00162 0.00263 0.000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.00000000			0.4	. 66235		.900035	.000053	.662201	.662201	£755	
1773				000006	616328		.000361	.532059	.682359	1.082	
Table 10.75	_						.000336	1.600303	1.000000	2.589	
100							.000152	1.000000	1.030030	3.078	
10 10 10 10 10 10 10 10										3,501	
389 1187 CAL		_								4.581	
1987 1987 2014				-		-			.753125	5.091	
340 1193 CAL									.254340	5.456	
1930 1930 1931										6.392	
790 FF SIM = .0000 ROW CO TIME = 7.6+1 + TOAP VERTICAL FIN (PORT) 20 735 1032 CAL000333 .000013 .033733 .700333 1.000900 1.000000 .798 736 1057 CAL000311 .000177 .000181 .000318 .506008 .596608 2.471 736 1077 CAL000011 .010723 .000011 .000318 .596608 .596608 2.471 735 1075 CAL000041 .000162 .000041 .00030 .500510 .606510 2.900 736 1077 CAL00036 .00018 .000036 .000364 .506510 .796536 3.714 737 1083 CAL00014 .00066 .00017 .000338 .501948 .501948 4.421 738 1086 CAL00014 .000368 .00017 .000338 .501948 .501948 4.421 738 1097 CAL00014 .000368 .00017 .00037 .000167 .343547 .343543 4.816 739 1097 CAL00014 .000368 .00018 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .000369 .662462 .720 700 1030 CAL00035 .000018 .00035 .00036 .662482 .720 700 1030 CAL00036 .00018 .00035 .00036 .662482 .720 700 1030 CAL00036 .00003 .00003 .00036 .662066 1.041 700 1030 CAL00036 .000036 .00036 .00036 .66206 .682066 1.041 700 1030 CAL00036 .000036 .000036 .00036 .662482 .720 700 1030 CAL00036 .000036 .000036 .00036 .682066 .682066 1.041 700 1030 CAL00036 .000036 .000036 .00036 .682066 .682066 1.041 700 1030 CAL000036 .000036 .000036 .000036 .682066 .682066 1.041 700 1030 CAL000036 .00006 .000036 .000036 .000036 .682066 1.041 700 1030 CAL000036 .00006 .000036 .000036 .682066 .682066 1.041 700 1030 CAL000036 .00006 .00006 .000036 .000036 .000036 .000036 .682066 1.041					•				.065330	6.591	
TAS 1033 CAL000133 .00013 .03373 .778079 .778079 1.164 345 1050 CAL003181 .700177 .300181 .300233 .596508 .596608 .596608 .2.471 345 1073 CAL000181 .700177 .000181 .509508 .596608 .596608 .2.471 345 1075 CAL000181 .700178 .00018 .509510 .509510 .2.900 345 1075 CAL00041 .700182 .700026 .700026 .700510 .70950 .778079 .7780	360	1 ~ u/s	. 50	• 9 · 6 2 · 7	• 5 0 47 0	• , , , , ,					
1050	~ 9 ú	FF SILM	= ្ខំពូពូ១	ቆ ርዛ ∟¤	TIME =	7.6+1		+ TPAP	V=±1	TICAL FIN (PORT)	2U
1050				000177	000047	5111 77	. 400133	1.000000	1.000000	.798	
345 1077 CAL000011 .010733000011 .000011 .596608 .596608 2.471 785 1075 CAL000041 .000162 .000041 .000130 .500510 .500510 2.900 785 1077 CAL000041 .000162 .000036 .500510 .500510 2.900 345 1077 CAL00026 .000128 .00026 .00036 .596536 .796536 3.314 785 1077 CAL00026 .000128 .00026 .00038 .501948 .501948 4.421 785 1085 CAL00024 .00026 .00037 .00038 .501948 .501948 4.421 355 1087 CAL00036 .00028 .00037 .00037 .00046 .501948 .501948 4.421 365 1087 CAL00036 .00028 .00037 .00038 .0						100181	100233	778179	.778070	1.164	
785 10.75 08L	· -	<u>-</u> .			_	-					
345 1777 CAL										2.900	•
335 177 CAL	· -				7 1 7 2/7 2 2	_	-			3+314	
1986 CAL .00014 .00029 .10107 .00167 .343547 .343543 4.810 .365 .1047 .20414 .00014 .000162 .104605 .104		_							.531946	3 4.421	
355 1937 CAL900114 .000268 .JJCC14 .CCJ30 .104605 .104605 5.141 365 1937 CAL0CJ303 .CCCD00 .DJJ03 .CCCJ30 .CC2936 5.922 366 1937 CAL0CJ303 .CCCD00 .DJJ03 .CCCJ30 .CC2936 .CC2936 5.922 370 1930 CALCC0035 .CCJ30 .DCC35 .DCC35 .662482 .CCC 370 1950 CALCC0035 .CCCJ36 .CCC356 .662462 .CCC 370 1950 CALCC0036 .CCCJ36 .CCCJ36 .CCCJ36 1.CCCJ30 1.CCCJ30 2.516 370 1076 CALCCCJ376 .CCCJ376 .JCCCJ376 1.CCCJ370 1.CCCJ376 .CCCJ376 .CCCJ377 .CCCCJ377 .CCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCCC							.000157	. 343543	.343543		
385 1937 CAL00337 .000000 .030703 .00091 .032936 .032936 5.922 33C FF SUM = .0004 ROW CE TIME = 7.292 + TRAD VEPTICAL FIN (PORT-AFT) 20 39C 1930 CAL00035 .000018 .00035 .300353 .662482 .662482 .720 39C 1930 CAL00035 .000018 .00035 .000369 .682066 .682066 1.041 39C 1930 CAL00036 .001458 .00036 .00036 1.00000 1.00000 2.516 39C 1976 CAL000162 .001896 .000162 .300162 1.00000 1.00000 2.992						.330014		.104505			
33C FF SUM = .0004 ROW CF TIME = 7.292 + TRAP VEPTICAL FIN (PORT-AFT) 20 33C FF SUM = .0004 ROW CF TIME = 7.292 + TRAP VEPTICAL FIN (PORT-AFT) 20 33C FF SUM = .0004 ROW CF TIME = 7.292 + TRAP VEPTICAL FIN (PORT-AFT) 20 33C 1030 CAL00035 .000018 .00035 .000353 .662482 .662482 .72C 33C 1030 CAL00035 .000018 .000356 .000369 .682066 .682066 1.041 33C 1036 CAL00036 .001458 .00036 .00036 1.00000 1.00000 2.516 33C 1036 CAL00036 .001458 .00036 .00036 1.00000 1.00000 2.992	· -					.936203	.000391	.072936	.032936	5 5.922	
34C F	. J-9	1.		• , • • •							20
797 1360 CAL	340	Es dan	± .0004	ROW CF	_ TIME =	7, 292		+ TRAP	V E P1	ICAL FIN (PURITAFI)	20
797 1360 CAL		4071	CAL .	.0.0035	.003018	.001035	.300)53	.662432	.662488	.720	•
390 1074 CAL				000245	.030329	100745	.000369	- . 632066	. 682066	1.041	
390 1076 CAL000162 .001890 .J00162 1.00090 1.00000 2.992						_	.000336	, 1.000000	1.00001	2.516	
3 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1							.300162	1.000000	. 1.099001	2.992	
	2,41	1,				-130055	, pr n 1 %	435813	.43581	7 3.414	

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

MODE T	MONE 00	OMPRITATION	MNSHTU NNSHT	(1,1) FA(1,J)	F (T.J) SHOUSHAR F	AD. F. SHAD. A ACTOP FACTOR	COR TIME (SEC):	
794	4 ማ ዓ ዓ	CAL.	.000149 .00076	.000148	.a.3397 .3	53151 .357151	4.852	
799	10.88	rai.	.003177 .00357			64755 .264355	5.249	
797	1,44	CAL.	.000075 .00143			29735 .129735	5.995	
≠aŋ	1395	CAL.	.grj.*** .30349		.301131 .0	65437 .065337	6.275	
_ 46 0	Ec Silw =	- 0019	פרא טר ±באב =	7.189	• I	SVD AEDL	ICAL FIN (ST3D)	23
					-	4	,77 <u>1</u>	
, * 95	1 ° 30	CAL.				91034 1.609000 70976 .778376	1.129	
3 Q F	1953	CUE	**************************************		-			
395	4 7 74	CAL				946]3 .594633		•
795	1 * 75	nte.	.000141 .00116		• • • • •	09557 •509557		
335	1279	016.	.10125 .00112		•	94564 .396564		
3.25	1234	nat.				01939 .501979		
775	42.45	೧ ٨€.			• ,	42577 .743572		
ខណ្ឌ	1 J R R	CAL.		ie "jionių		04615 -104615		
315	1374	TAL.		19 .000003	.007130 .0	32933 .532932	5 628	
*195	ኮድ ደ044 ±		ማርቁ ድም <u>ታ</u> ፕዛሮ 🚊	6.636	<u>.</u> *	oko AEEI	TOAL FIN ISTAD-	AFT) 20
795	FF SHM =	3.	ደብዙ ቦር ፕፕ ዛፎ ፹	2.171	+ 1	750MO	IST FORWAPO EVAP	PORATOP
~ 700	EE SIIM =	0.	POW OP TIME =	P.50°	- n	rsc	SUPER ENGINS	S LOCAT
701	FF SIIM =	7•	POW CP TIME =	2.109	+ n	ISC	SUPER ENGING	COMS LOCAT
7 7 ?	FF 500 =	ŋ .	פחש הא דדאE =	8.265	- n	TSC	SUPER ENGINS	COMS LOCAT
787	г г с үн ≖	^.	REH OF TIME =	2.115	+ 0	15C ••••	SUPER ENGINS	COMS LOCAT
24	FF SUM =	^.	ውስህ ስር ተቸጠና ±	2.144	<u>,-</u> n	ISC •••	MACK KUS LOOK	CING +/- Y.C

INDICATES NODE PATH HAS BEEN SUBSTVICED !

			ι,	. INDICVI	E NODE EN	TE HAZ ES	EM REMAIN	111-111			
40 ÚE 1	NOTE 3 C	Оментатійн	FE(I,J)		FA(I,J) WASHAO			SHAU* A C	TTME (SEC)#		
25	FF 584 =	0 •	BUM ∪5		7.922		+ pisr		(P(S	LOOKING +	/- Y. (
18	EE GHA =	'n.	∋ÚM LŁ	₹IME =	?₊1₹₽		- nisc	FRn:	NT ROSL	00KTNG +/	-Y AT
19	בר 204 ב	· ••	bin up	TIME =	4.992		• 0150	FPA1	IT ROSL	OOKING +/	-Y AT
26	F" SU" =	o •	oth ut	AIME #	7.978		- 01SC	PAC1	C RCS LOD	KING +/-	27/
27	\$E ८ 1∤₩ ∺	a .	ROW OP	7 <u>7</u> M S =	2.145		+ 9750	PAC	r RCS 100	KING +/-	77/
18	FC (1)M =	9 •	ኃ(ህ ሆነ	TIME =	7.504		- misc	•••HIO	DLC FV42.	LOOKING	+/- Y.
17	EE SHW =	۸.	⇒UM Co	TTMS S	2.171		+ በተናሶ	•••	ILT FVAP.	LOOKING	+/- Y+ , (
390 790 330 330 730 730 730 730 730 730 730 73	13 % 13 % 13 % 13 % 13 % 13 % 13 % 13 %	CAL. CAL. CAL. CAL. CAL. CAL. CAL. CAL.	. ncoqie . oceina . o	.001072 .53+231 .001634 .001634 .001637 .001637 .001637 .001637 .001637 .001637 .001637 .001637 .001637 .001637 .001637 .001637 .001637	.000916 .036192 .000207 .000127 .000127 .000127 .000127 .000177 .000177 .000177 .000177 .000177 .000177 .000177 .000177 .000177 .000177 .000177 .000177	.000307 .000310 .000127 .000127 .00012 .000348 .000348 .000348 .000348 .000348 .000348 .000348 .000348 .000348 .000348 .000348 .000348 .000348 .000348 .000348 .000348	1.00000 1.00000 1.00000 1.00000 1.000000 1.000000 1.000000 1.000000 1.000000 1.00000 1.00000 1.00000 1.00000 1.000000 1.000000 1.000000 1.000000 1.00000 1.000	1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000 1.00000	2.012 3.595 4.379 5.495 7.495 10.447 11.137 12.197 13.877 13.877 14.001 14.720 27.77 27.77 27.77 27.77 27.77	-	· .

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED):

NODE T	NOTE J	фочент Аттон	FE(I.J) OAHPOW	FE(J,I) W/SHAO	FA(T,J) W/SHAO	F (I,J) WO/SHAD	SHAO. E FACTED	SHAD. A	CP TIME (SEC)1	•	
399	EE CIIM	= .0141	ROW CF	TIME =	26.016		+ RFCT	VERT.	FIN LOG.	EDGE 2	
1030 1330	1 m2d 1 2 m1	↑8L. CAL.	.367777 .883093	.054879 .055546	.36 ⁷⁷ 77 .02029		1.000000		10.754 10.967	•	
1900	Ec city	= .7258	୍ଟରେ ଜନ୍ମ	TIME =	14.522		+ CYLN	TUNK	NSL 1, X=5	62 TO 668.3, S	PA
1^23 1020	1248 1211	^^!.	.000357 .000048	.039146 .077559	.000057		1.649000 1.80000		.664 1.359	•	,
1030	En dild	= ,4730	አርሐ ፌኮ	ক্ৰ প ন্≘	₹.739		+ CONF	FWD C	ONF. X=66	8.3 TO 694.0,	80
1235	FF SUM	= •1136	ዋዕዝ ር ዋ	₹[भ⊏ं=	1,968		- Dicc	ECS,C	STAPNECHO	VENT, X = 681, S	PA
1201	£6 6114	= "9759	⊃ÜM Ç6	ilmi =	7.582		+ 9750	ECS, (STAPHBONOC	VENT, X=601, S	PA
1979	EE SIIM	= .5313	ଟ୍ମ୍ୟ ଓଟ	T]ME = -	1.752		+ CYEN		CORE SEG	MENT X=694.0	Ť
10000000000000000000000000000000000000	10 63 74 10 74 10 75 10 77 10 77 10 77 10 10 10 10 10 10 10 10 10 10 10 10 10	CALL	. C225487 . C23587 . C13867 . C13867 . C13967 . C11197 . C16147 . C16147 . C16147 . C26147 . C26147	.100172 .17141 .527141 .56337 .067637 .067637 .048772 .048772 .048770 .018777 .018777 .018777	.022611 .000558 .010558 .012960 .014901 .011195 .016147 .016147 .014563 .014563 .014563 .016147	.000566 .000336 .015796 .016132 .01270 .011340 .000143 .004563 .004563 .004563 .004563 .003574 .00374	1.000000 .883781 .923785 .911964 .803656 .69365 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000 1.000000	.986787 1.000000 .683781 .923705 .911968 .803556 .803696 1.000000 1.000000 1.000000 1.000000 1.000000	6.896 9.323 9.747 10.529 11.326 12.329 11.648 17.635 14.377 14.8377 14.8377 14.8377 14.8377 14.8377	*	
1250	1194 1395	006°	. 350747 . 351785	7.1450 7.4030	.ერომ47 .001795		1.070374		17.998 18.487		

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED):

			(*	INDICALE	S NUUE PA	T4 489 E.	. EM (90.301)	1000				
MODE T	NAAS (COMPUTATION	F=(T.J)	FF(J,T)	FA(I ₃ J)	F (I,J)	SHAD. E	SHAD. A		•		
MOG- I	1407-5		W/SHAD	W/9440	W/SHAD	HU/SH4D	FACTOR	FACTOP	(SEC):			
	400	na.	.002262	.005045	.002252	.002262	1.000000	1.000000	20.421			
1050	44.27	CAL.	.00005	090492	.000005	200375	1.000000	1.000000	21.075	•		
1050	117)		.008917	968236	.038917	100317	1.000000	1.000000	21.849	*		
1050	1131	C'L.	*00031	• 909.30		•						T A
10 កព្	EE SUM	= • • • • • • • •	ውብ (P	TTME =	21.854		+ CONE	AFT	CONE TAPE	R, X=799	.90	10
45.55	41.27	^AL.	.G^J135	. ეცეივუ	.000135	.000135	1.000000	1.000000	.471			
1766	1673	CAL.	.000175	000937	.00135	.000135	1.000000	1.000000	•703			
1050	1074		119222	.]176 ⁶ 6	019222	.019222	1.090000	1,000000	8.080	*		
1757	1775	CAL.	.019222	.017656	919272	.019222	1.000000	1.000000	15.522	*		
1360	1 7 7 5	TAL.	.015239	017557	015230	.015233	1.000306	1.500000	10.531	•		
1050	1377	7AL.	•035657 •015158	117574	.715158	.015158	1.000000	1.000000	23.551			
1750	1779	CAL •		015536	925858	.025358	1.000708	1.050008	29.696	-		
1060	1079	CAL.	* 952 e2 a	.357741	130016	.002406	1.000006	1.000000	33.129			
1750	1243	CAL.	, PFJ_FS		.030006	.0 1336	1.000038	1.0000000	30.396			
1767	1034	08L+	.003006	.º:0044 .ºº:511	.000.00	.000,750	1.000000	1.003400	30.624			
1750	10 35	CAL.	.000556		.B*0556	.100556	1.007773	1.000000	30.851			
1063	1085	ral.	.nr0556	. 131511	.033344	0.02770	1.078880	1.000000	31.643			
1በ50	1397	CAL.	.027344	.010399	107344	000344	1.000000	1.001600	31.229			
1 ግ ዓጠ	4038	ral.	. BCu344	_1111 X C9			1.0000000		31.453			
1750	1230	^ AL .	107463	.003279	• ማኮርፋፍኝ		1.000000		31.914			
1 ግ ዓ ን	1.73	CAL.	.000001	. <u>ეე</u> იიკგ	_3JC001	# 1 3 0 1 9 L	1.000000	1.000000	32.212	•	-	
1º0°	1394	CAL.	.600001	.007006	.1010u1	0003346	1.000000	1.611000	32.463			
1 7 50	13 95	CAL.	.363086	.0000	.900636	350336	1.100173	1.010700	32.719	-		
1960	1096	GAL.	.003086	.103179	.000066	000154	1.000000	1.003000	32,915			
1060	17 37	∟₁ -	.jun351	.000050	.900351	4303331	1.000036	1.063660	73.114			
1050	1038	CAL.	+0f00T1		000451	400071	1.003009	1.360000	37.343			
1959	1349	LUF.	.203071	*102043	.000071			.445905	37.918			
1950	1133	CAL.	. 11193	.025892	.001393	.002452	• 447972					•
1860	EE SUM	= .5250	ፈሰሠ ቦ ዋ	TTMF =	33,991		+ CAFM	ĄF1	AIRLOCK,	X=831.3) TO	860
	40.75	0.84	.081426	.072452	.931426	.081426	1.000000	1.000000	1.056			
1155	1975	ΩΔ <u>ί.</u> Ωδί.	.021426	032452	031425	. 381+26	1.020008	1.000000	1.714			
1855	1976	CAL.	371248	.035462	.971248	.071248	1.000000	1.009300	2.368			
1065	1377	CAL.	271248	.935942	.271249	.571248	1.000000	1.000000	3.023			
1055	1078	-	142923	137393	142923	.142323	1.000305	1.000000	5.260			
1955	1279	CAL.	.014935	.05952	014935	.114935	1.000300	1.003070	5.091			
1765	1935	CAL.	.014935	.305952	114975	014375	1.752303	1.000000	6.314			
1065	4036	CAL.	014934		011807	.011997	1.000300	1.690386	6.655			
1055	4 P R 7	CAL	-	205943	311877	.311907	1.8000336	1.000000	7.917			
1055	1000	GAL.	*£11837	005431	327748	920748	1.000770	1.000000	7.340			
1465	1939	CAL.	•929748 •363357	-	117457	.003357	1.000000	1.003300	8.097			
1" 55	15 05	DAL.	10:30/ 00:3957	.011537	337557	.303357	1.770060	1.089409	9 . 445			
1065	1776	~ # <u>[</u> .	3.3001	.001510	003011		1.000000		8.819			
1065	10 97	C⊄⊾ •	• . C 3 II C I	*0.1.74	20200							

(* INDICATES NODE PAIR HAS BEEN SUBOTVIDED) +

MUUL I	None J CC	MOUTATION	FE(I,J) FE(J W/SHAD W/S		F (I,J) SHAP WO/SHAD FAC	n. E SHAD. A	CP TIME (SEC)!	
1945 1969	1398 1399	rat.	•005161 •001		.903001 1.003 .905161 1.00	3030 1.573003 3300 1.608033		
4 ሻ ሺ ፫	EC 2004 =	. 7311	ጸቦህ ጥር ተነዘድ :	= 9.783	+ 013	SC AFT	AIR FOCK DISK 2F5	
1270	FF SU" =	.9133	ROW CO TTME:	= 1.626	. + CY	LN PA	LLET1 ROTTON CYLINDER SL2	
1071	FF SHM =	. 3629	ROW OF TIME	± .969	+ REC	rt -Y	PALLET1 OUTSIDE STRIP SL2	
1772	FF SIIM =	.7435	60M Ca line	= •941	◆ ୧ 51	rT +Y	PALLETI OUTSIDE STRIP SL	2
1973	1130	CAL.	.000221 .000	780 .000221	.000662 .33	3418 .333418	1.815	
1973	FF 999 =	•3.56E	ROW OF TIME	= 1.887	± R50	DT , -Y P	ALLETS TOP STPIP X=873.2	Ť
1774	1130	CAL.	.O(1236 .OON	835 . 000236	.9,00662 .35	7347 .357347	1.769	
10 *4	두루 열대서 출	, ŋ 7F5	ROW OF TIME	= 1.835	+ R5(DT +Y	PALLETS TOP STRIP ,X= 873	•
1075 1075 10775 10775 10775 10775 10775 10775 10775	1076 1077 1078 1079 1079 1096 1098 1096 1097 1090 1090 1090	CAL. CAL. CAL. CAL. CAL. CAL. CAL. CAL.	.0f9758 .069 .015740 .019 .055797 .057 .086759 .053 .032622 .032 .021545 .001 .022966 .023 .023828 .015 .023828 .015 .056480 .076 .071147 .007 .072172 .014	967 .01574n 429 .055797 292 .148759 522 .137622 950 .11545 089 .027828 406 .006480 .006480 .0076432 426 .002172 .00373	.015740 1.00 .055797 1.00 .088799 1.00 .032522 1.00 .001545 1.00 .023868 1.00 .023888 1.00 .00545 1.00	0000 1.000000 0000 1.000000 0000 1.000000 0000 1.000000 0000 1.000000 0000 1.000000 0000 1.000000 0000 1.000000 0000 1.000000 0000 1.00000 0000 1.00000	1.407 1,834 2.858 3.329 3.610 3.896 4.145 4.657 4.953 5.270 5.534 6.037	
1976	FF SHM =	_4087	POW ÇO TIME	= 6.093	+ REI	ΩT	INSIDE TOP PANNEL 3 , X=873	•
1076	1977	CAL.	.055797 .073	429 .055797	.955797 1.80	0309 1.000000	.442	

(* THOTCATES NORS PAIR HAS BEEN SUBDIVIDED) !

			•	, , ,		_				
NODE I	MODE 1	MOTTATUMED	FE(I,J) DAHSVH	FE(J,I) W/SH10	FA(I,J) W/SHAN	НО\24¥D	SHAD. E FACTOR	SHAD. A	CP TIME (SEC) 1	,
.10.78	1070	SAL.	.615740	017957	015740	215740	1.990000	1.0057700	.674	
1076	15.79	CAL.	288750	058292	338759	188750	1.000033	1.000070	1.731	
13/0	1395	CAL.	.072622	032622	372572	132622	1.0000000	1.000000	2.181	
12 በ 10 ማብ	15 A.F	CNL.	.022956	921316	022965	.022456	1.000000	1.030000	2.505	
-	104	SAL.	.071545	ກຽງເຮັ	001545	01545	1.000000	1.3300000	2.785	
1976	1089	O TE 4	.723223	015649	123328	027428	1.0000006	1 . 000000	3.937	•
1076			7(5+87	0.64.0	•0u64o0		1.000000		3.528	
1976	1195	. CAL .	.003632	.004937	.373832	.003472	1.000000	1.011010	3.834	
19 76	1397	CAL.	-	. eggnos4	.jrn.43	. 600163	1.003333	1.101000	4.176	
1076	17.94	CAL.		.9j1426	202172	.000172	1.969903	1.003000	4.446	
1076	4030	CAI .	.002172		•302118 •300377	0.1176	.323095	721195		
1075	1,130	CAL.	• 600377	•919349	• 3111, 377	1061575	10216-5		,, ,,	
1975	FF SUM	= ,4947	מרא (ט	रामह =	5.009		+ PECT	+4	INSIDE TOP	PANNEL3, X=873.2
40.77	10.78	. LVF.	.3F1)55	.061070	.351800	.361330	1.600000	1.0000000	.393	
1077	1070	CAE.	.093263	049528	193268	.093268	1.000000	1.000000	1.674	
1077		* NE *	.381953	001545	.001950		1.001300		2.153	
1177	13 ዓዳ 43 ዓፋ	CAL.	028988	•P22966	.028988	.028388	1.000000	1.000003	2.437	
1077	1335		.319637	.319637	.019607	-019617	1.000000	1.000000	2.773	
1077	40.00	01L.		.nr=772	•919133		1.000000			•
1077	1139	DAL.	. f111172	,111643	270254		1.6000000			
1077	1395	CAL.	.0(0754	0019943	.034337		1.0000000		10.229	•
1377	17.95	CAL.	.004937	•	.032231		1.000000			
1077	1098	C1L.	.002231	.002231		900000	1.000000	4.606.00	10.659	
1177	1199	CAL.	.jrp405	.310211	.000465	•€09409 •6€4950		.077596		
1777	143)	07L.	•1693.4	.001=59	.530574	* 00 a 30 a		• // / 9-0	11.093	
1377	EE GIM	= 4876	alm Le	ttm= =	11.456		+ PECT	-4	INSIDE BOT	TOM PANNELS, X=8
		•••		0.0530	•097268	107769	1.000000	4.506583	1.290	
1078	1079	CAL.	.193263	,049529	_	7 2 2 2 2 2	1.000000	1.00000	1.787	
1978	1, 35	041.	. 723943	.022966	.023988	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	1.000000	1.00000	2.063	
1278	1335	CVF.	.][1953	.0)1545	.101955		1.000000			
1079	1087	CAL	. 19007	.619517	.319607	0 0 1 7 7 G F	1.779000	1.000000		•
1178	17 89	ret.	.310172	.005272	.911132		1.000300			
1378	1395	CAL.	.004337	.007832	.904937		1.800000		_	
1078	1095	CAL.	.010154	.101043	.000054		1.000000			•
1779	4097		4.052271	.002231	.992231					
1078	13 93	COF *	_ 30 7 40 F	30211	103435		1.000000		11.051	
1 ^ 7 P	1131	~ NL .	.003177	.077743	• 333177	• 000 358	.18621C	*1995!	11.021	
1078	EE SHM	= .4666	POW CP	TIME =	11.111		+ RECT	+ Y	INSIDE ROT	TOM PANNEL3, × 87
40.70	4 2 5 2	0.44	645643	.023325	.915640	. 015640	1.3993.0	1.000000	.476	
1979	16 35	OAL.	• *15643	.0279?8	.015649		1.000000			
1079	1005	UVF .	. 415540	* U C 3 T 2 N	*01.0000	*619949	110000000	1000000	*, = >	

(* INNTRATES NOOF PAIR HAS REEN SUBDIVIDED):

			•			•				
Muum I	МОБЕ Л	COMPUTATION	FEIT, 1) W/SHAD	FF(J.T) W/SHAD	FA(I,J) W/SHAO			SHAD. A	CP TIME (SFC):	
1070	1397	CAL.	- 015272	.010132	.095272	.005372	1.000300	1.000000	7.364	•
1979	13.38	CAL.		.010132	.305272	-	1.300000		13.932	*
1170	10.05	DAL	901436		001426		1.000008		14.455	
1979	. 10 04	CAL.	.091426	092172	001426		1.000000		14.719	
1779	1097	CAL.	.000211	.993405	.310211		1.000000		15.003	
1079	10 99	CAL.	.010211	ខ្លួកផ្សេច	.000211		1.000000		15.270	
∮ n =a	वह व्युच	= .3924	ብር W3¢,	T 14E =	15.862		+ ₹860	•••9	OTTOM PANN	EL3 ,X=873.2 TO
4000	FF CIJM	= .9210	ጋቦህ ሶ ር	T [M = =	1.159		+ CYLN	PAL	LET4 POTTO	M CYLINDER X= 93
	•									
1981	FF SIIM	= .3004	BUM CB	∡Imė =	.577		+ RECT	-Y	PALLETA DU	TSIDE STRIP SL2
10 02	हा द्राप्ति :	= ,7774	የ ሶዛ የP	TTME =.	.657		+ RECT	+4	PALLET4 D	UTSIOE STRIP SL2
1., 0		• •		· · <u>-</u>		•	4			
4002	1137	CAL.	.003058	.05*205	.00005A	.007166	.350280	.350280	1.533	
1987	FF SUM	0256	auM Uc	TIME =	1.600		 ♥ ₹ECT 	-Y P	ALLET4 FOR	STPIP X=987.2 T
1394	11.33.	CAL.	.009958	.004210	.000059	•660166	.358266	.358266	1.457	
1934	FC 304 :	= .0221	POW CP	TIMT =	1.523		+ RECT	+4	PALLET4 TO	P STRIP , X= 987.
1995	1036	CAL.	.069758	.059758	.059758	.069758	1.000000	1.006096	1.487	
1785	1397	ral.	115740	019867			1.000000		1.671	
1345	12.83	CAL .	055797				1.000000		2.159	
1035	1749	ral.	169759	•	.088759		1.000300		3.377	
1195	1006	CAL.	177677			.032522	1.090700	1.6000000	₹.872	
10 0=	1007	ral.	001545	0្រាចកញ្	001545		1.0000000		4.152	
1995	1008	CAL.	922966	u21938	022355		1.000000		4.452	
1105	1 - 90	CAL.	.023926	315649	.027A28		1.000000		4.693	
1085	1:30	74.	.020176	102828	.030196		.333898		5.238	
	FF SUM		POW CE	****	5,293		+ R <u>⊴</u> ∩▼	-4	INSTRE TOP	PANNEL4, X=987.2
1045	E = 20 T	÷ ⊕₩™±€	रुप्ता १००	, <u>T</u>	3,657		* %='		******** 10°	· AMILENTIN JOT VE
1135	1937	CAL.	.155797	.673429	.155797	.155797	1.000009	1.303000	. =09	

(* THOTCATES NODE PATE HAS BEEN SUBDIVIDED) :

			[+	TMÜLÜVIE	2 MORE PO	THE HAS HE	Tem Zonomi	A LOE O.) +	*	
NODÉ T	морт∃	COMPHITATION	FE(I,J) W/SHAD	FF(J,T) W/SHDD	F4(T.J) W/SHAD	F (I,J)	SHAD. F	SHAO. A	OP TIME (SEC):	4
4000	13 48	ont.	.01574"	.019857	.015740	.015748	1.000000	1.000000	.770	
1346		CAL.	.029759	.05929?	.398759		1.000000			
10 85	1799		.032522		.372572		1.000000			
1186	1005	ΓΛ _L .		.025035	022966		1.000030			
1086	1997	GAL.	,172766	•			1.0000000		3.052	
4196	1098	C41.	.001545	.001950	.001545		1.000000			
1905	1030	GAL.	. 123323	.015649	.023328		.325312			
1096	1177	C41, •	•369193	• 00 27 55	.310113	• 0 L 0 31 7	• 375312	•355315	3.029	
1196	FF SHM	= .4760	ጸቦዛ ቦ₽	TIME =	3.443		+ ዋሟጣቸ	+ 4	INSIDE TOP	PANNEL 4 , X = 987 . 2
	•									
1987	13 38	CAL.	•0f1303	.061000	• 161010		1.000000			
1937	1^99	ማስፈ 🛊	.163388	1,48634	•193263		1.000000			
1097	1395	በላይ •	.001950	.00154F	.001951		1.000000			
1397	4006	OAL.	_ 32A9A8	.022966	•058 0 88	•92895A	1.003030	1.000000	2.661	
1097	13.38	C&L.	•019697	•019607	•9196°°		1.0000000			_
10 47	1119	CAL.	.019132	• 005272	.010132		1.000000			*
1097	1170	OAL.	.083110	.002775	.000110	.009331	.333312	.373712	10.255	
1097	EE CIIM	= .4510	ଟିହିଲ ଜନ	TIME =	13.267		+ 9501	-4	INSIDE AOTI	FOM PANNEL 4. X=3
1288	1089	CAL.	.193268	.043528	.097253	.097268	1.000000	1.00000	1.422	
1388	1195	raL.	123985		123983	.02898R	1.800000	1.000000	1.934	
1039	13.96	CAL.	954959	.011545	101950		1.000000			
10.07	10 97	DAL.	.0196.7	919637	019607		1.030000			
1988	1399	naL.	.615132	.195272	010132		1.000000			*
1198	1435	raL.	.020189	.032297	101139		.327913			• .
1034	EE SHM		የ ዕሣ ቦዖ	TIME =	0.549		+ RECT	+ Y	INSIDE BOTT	FOM PANNEL4, X 95
10.49	1195	CAL.	·n15640	.023323		-	1.009030			
+939	₫ 0 9 6	CAL.	.015549	. 623958	•V15649		1.000000			_
1039	1-0-	DAL.	• O(5272	.013132	.095272		1.0000000			•
1199	1198	CAL.	.05272	.010172	.005272	. CDF 27 2	1.000000	1.000000	14.142	*
1939	1130	CAL.	.Oru117	.004771	-330117	• d d d 353	:332435	•33243F	14.731	
13 49	FF SUM	= .3720	RON CP	TIME =	14.792		+ PFCT	PAL	LET4 BOTTO	1,x= 987.2 TO 11
		. 0445	sum ub	TTMC =			+ CYLN	PAI	LETS BOTTO	4 CYLINDER X= 11
1099	キド らけん	911 6	~ C C C C C C C C C C C C C C C C C C C	FIRE T.	* 11 t J					

(* INDICATES NODE PAIR HAS BEEN SUBDIVINED):

•										
NODE I	አበካ፣ ነ	COMPUTATION	FE (I, J)	FE(J, I) M/SHAD	FA(T,J) M/SHAD	F (T,J) MOVSHAD	SHAR. F FACTER	SHAD. A FACTOR	OP TIME (SEC):	•
1091	FF 9114 :	= . ₹096	BOM CB	TTME =	.416		.+ RECT	-Y F	PALLETS OUTS!	DE STRIP
		• • • • • • • • • • • • • • • • • • • •			D .					
1992	FF SUM	= .8912	KUM Cb	₹ ₩ ₹ =	.381		+ REDT	+4	PALLETS OUTS	SIDE STRIP
1093	1137	cal.	.000000	.003070	.000020	.000355	.355731	. 355 331	1.217	٠
1093	FF SUM	≠ <u>⊾ଞ୍ଚଳ</u> ୍	áun úa	= SMIT	1.723	•	+ RECT	-Y P	ALLETS TOP S1	PIP X=1101.2
1*94	1132	CAL .	.000020	• <u>aponze</u>	.000020	.000155	.358968	.358965	1.172	
1994	EE SUM	= •0949	ລໂປຕ໌ ເພ	TTMF =	1.237		+ PRCT	+ Y 6	PALLETS TOP S	STRIP ,X= 1101
1005	4125	SAL.	.069758	•^69756				1.000000	1.169	
10.95		OAL.	.015740	.019367	.015740	.015740	1.000000	1.003000	1.419	
1095		CALL		.971429		^55797	1.019000	1.000000	1.862	
1095		PAL.		.054292		.J <i>ea7</i> 59	1.030979	1.000000	2.892	
1095	1130	CAL.	.300037	.099986	.000037	.030109	. 339242	.739242	3.455	
1195	Ec cild	= .5420	OCM DE	TIME =	3.510		+ PECT	-Y]	INSIDE TOP PA	NNEL5,×=1101.
4196	13.97	CAL .	.0=5797	.079429	.055797	055797	1.000000	1.000000	. 459	
1006	_	CAL.	015749					1.000000	•712	
1196		CAL.	7,3750		.388759	.068759	1.000000	1.090000	1.739	
4396		OPL.	.000036		.anan36	.000109	.327164	227154	2.309	
1006	FF SUM	= .5267	⇒UM Ce	TIME =	2.363	•	+ RECT	· •¥ 1	TNSIDE TOP P	ANNSL5,X=1101.
1=0=	*r 98	CAL .	.0€150ú	.051902	.951009	.961930	1.000000	1.000000	• 393	
1097		CAL.	.097768		.193268	.097258	1.0000000	1.600000	1.639	
1097		The .		.000870				.339850		,
1997	FF SH4	= .5155	י פנא נפ	114E =	2.313		+ RECT	-Y !	INSIDE BOTTO	9 PANNELS, X=1
1603	10.19	rae.	.093268	.048529	.193268	.093268	1.000000	1.000000	1.257	
1936		CAL.	.007841	.003859	.003041	.00123	.331418	•331418	1.673	
10 QA	FC 6114	± .5€34	BUM LD	TTHE =	1.937		+ PECT	+4]	INSIDE BOTTO	M PANNELS,X 11

MOREL = CONTAM STEP = 1 FORM FACTOR CALCULATION LINK.

(* INDIPATES NODE PAIR HAS BEEN SUBDIVIDED):

None I	NOOF 1	помонтұт]ом	FE(I,J) W/SHAD	W/SHAD	FA(I,J) HZHAD	F (T.J) SHAD. HO/SHAD FACTE	
10 99	FF SUM	= .4360	ד פון שונק	TM5 =	.673	+ RFCT	PALLET 5 BOTTOM, X=1311.2 TO 12
1110	te dim	= .0000	POW 6P 7	IMS =	. 396	- DISC	CORE SEGMENT WINDOW, X=746.9
1111	FF SIM	= . ፀიღፋ	ንቢዝ CÞ ፕ	TME =	•135	+ 0150	CORE SEGMENT WINDOW, X=746.9
1130	FF SIIM	= .1201	≼∟M (⊳ 1	TIME =	.G82	- oisc	AFT VIEWTNG WINDOW X=815.6, S
44 71	EE SHU	= .979°	ohm to 1	 TME =	.624	+ 0180	AFT VIEWING WINDOW X=815.6, S

TOTAL TO TIME (SEC) FOR PROBLEM = 1690.135

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SPACELAB-2 GEOMETRIC RELATIONSHIP DATA MATRIX

The following pages contain the geometric relationship data computer printouts for the Spacelab-2/Orbiter configuration.

POSITION VECTOR I

MODEL = CONTAIN STEP = 1
PROCESSETYS OPERATION DATA

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NOTE T HODE & FITTON

SHUTTLE CONTAMINATION STUDY (SPACE LABZ (RECIEVING SHUTTLE))

NORMAL VECTOR I

					•						
•											
20	1030	\$301J38	3.7 <u>1</u> E+83	20,22	108.37 5.57+115+32	3.715+03	0.	1.44E-08	-4.70E+02 -9.54E+01	8.00E+01	
~ 3	1,050	.323541	3.712+03	20.43	50.94 4.833517+02	3.71E+03	0.		-4.705+02 -9.545+01	8.005.01	
2 10	ተጠፍላ	•905428	3.717+03	16.39	105.65 4.481766+12	3.715+03	0.	1.44E-08	-4.70E+02 -9.54E+01		
7 1	1765	.963312	7.71E+03	19.02	13.02 4.302995+02	3.71E+03	c.	1.44E-08			
27	1072	.307187	3.71E+03	17.43	87.27 3.477575+12	3.715+03	₽.	1.44E-28			
• 5	1073	. 477217	3.712+83	24.37	87.16 3.861665+02	3.715+03	€.	1.44E-38			
23	1974	.130320	3.715+03	11.46	79.32 3.467382+92	3.719+03	0.	1.44F-38	-4.70E+02 -9.54E+)1		
20	1375	.004577	7.715.07	29.34	62.14 3.861755+32	3.71E+03	0.	1.445-09			
. 29	1376	• 005769	7.717+43	15.22	90.19 3.521485+32	3.715+93	U .	1.44E-08	-4.73E+92 -9,545+21		
7.	1077	•013688	3.717+73	29.97	61.13 3.893316+02	3.716+07	0.	1.445-18	-4.70E+02 -9.54E+01		
5.0	1078	.001036	3.71#+33	21.2ú	82.84 3.64456F+92	3.715+03	٥.	1.445-08	+4.705+02 -9.542+31	8.005+01	
٠ <i>ن</i>	1079	•°05582	3.715+33	26.02	68.97 3.781295+12	7.715+93	٤.	1.44E-J6	-4.73E+32 -9.54E+J1		
20	1245	.100611	7.715-07	10.75	86.00 2.37392K+92	3,716+03	£ • 3	1.44E-JA	-4.70E+02 -9.54E+01		
23	1043	• 600005	3.745+63	39.09	76.33 2.90340 <u>c</u> +92	3.71E+93	0.	1.44E-13	-4.70£+02 -9.54±+01		۲
2.1	1784	. 301 150	ም# ምሳብተው ፕ	16.96	73.76 2.363675+32	3.715+93	3.	1.44E-38	-4.70E+02 -9.54E+31		ļ
25.0	1385	.nna572	3.71E+03	39.07	51.66 2.90318E+32	3.715+03	0.	1.44E-38	-4.76E+82 -9.54E+01		٠
5 ل	1496	.3010A0	3.716+97	22.26	90.14 2.437976+92	3.715+03	0.	1.446-39	+4.708+ú2 -9.548+ú1		
23	1007	•977595	3.712+03	39.63	50.33 2.934105+02	3.715+03	u •	1.445-38	-4.79E+02 -9.54E+J1		
23	1700	. 162710	7.719+03	39.27	79.93 2.614385+92	3.71E+03	8.	1.446-08	-4.70F+03 -9.54E+01		
2.0	1000	.0427 <u>2</u> 3	3.710+93	36.30	61.03 2.871845+02	3.71E+03	0.	1.445-03	-4.709+02 -9.54E+01	8.90E+01	
20	1002	6333700	3.718+6*	37.81	\$2.92 1.7+56°F+J2	7.710+03	2.	1.448-33	-4.70E+42 -9.54E+J1	3.JOE+01	
20	4332	100767	7 .71 =+63	53.64	72.13 2.143465+72	3.71E+03	0.	1.44E-J8	-4.705+02 -9.545+Ji		
23	1994	•P35846	3.7 15-03	31.63	59.81 1.31707F+92	3.71E+03	r.	1.445-33	-4.70E+02 -9.54E+01		
2.3	1035	.815514	3.71F+03	58.62	32.82 2.145835+32	3.715+03	۵.	1.448-18	-4.70E+02 -9.54E+01	8.00E+01	
2.0	1396	• 703742	3.71E+03	39.53	99.23 1.453525+92	3.71E+93	0.	1.445-38	-4.705+02 9.545+31		
2 n	4002	, <u>0</u> 1 1 054	3.715+^7	59.17	31.35 2.191915+32	₹.715+03	9 ·	1.446-18	-4.73E+S2 -9.54E+31		
2.0	1000	.066441	3.71E+03	49.69	74.75 1.72310E+92	3.71E+63	C •	1.445-98	-4.78E+82 -9.54E+81	3.302+61	
20	11100	. 123784	7.717+07	56.02	47.28 2.003415+32	3.719403	3 •	1.44=08	-4.70E+02 -9.54E+01	8.305+01	
20	1117	.00°°°4	3.71£+n ኛ	10.53	89.90 5.27137E+02	3.71E+03	ũ •	1.44E-28	-4.732+32 -9.542+31	8.00E+01	
3.0	1111	• 0.000 ± 5	3.716+37	10.53	90.13 5.22337E+02	3.71E+03	0.	1.44E-38	-4.70d+02 -9.54E+31		
3.0	1130	.978691	3.715+03	12.72	13.84 4.659246+02	3.712+03	0.	1.448-08	-4.70E+02 -9.545+01	8.002+01	
. .			_							- -	
21	1037	.001Pd9	₹.71€+0₹	B . 9F	89.32 5.293526+02	3.71E+03	0.	1.448-38	-4.70E+J2 9.54E+D1	8.005+01	
1	1000	• 120541 ·	₹ , 715+03	11.27	28.49 4.6234FF+J2	3.715.03	S .	1.446-08	+4.70E+02 9.54E+01	8.302+81	
21	1362	.000428	3.714+03	14.06	*0.81 4.37342E+02	3.712+03	0.	1.446-08	-4.70E+82 9.54E+31		
21	1755	.003712	3.715+03	18.02	18.02 4.302995+72	3.716+03	£ •	1.44E-08	-4.70E+02 9.54E+31		
			•							_	

MOREL = CONTAM STEP = 1 PROCESSING OPERATION DATA

SHUTTLE CONTAMINATION STUDY (SPACE LABS (PECIEVING SHUTTLE))

M00E I	мора ј	F(I,J)	a FFA	THEFT	THETJ	PADTUS	ИO	MAL VECTOR	I	POSI	TION VECTO	RI
21	1371	.009197	3.71E+03	12.43	97.27	3.47953E+02	3.715+03	0.	1.44E-08	-4.70E+02	9.54E+01	8.00E+01
21	1377	003729	3.71E+03	11.46	79.82	3.46798E+82	3.715+03	0.	1.445-88	-4.702+02	9.54E+01	8.305+01
21	1574	• 0r3217	3.71E+97	29.37	°C.16	3.861665+92	3.71E+03	C .	1.445-08	-4.705+02	9.54E+11	8.00E+01
21	1075	, n p 3 7 6 9	₹.718+03	15.22	90.10	3.52148E+32	3.71E+03	9.	1.44F-38	-4.70E+32	9.54E+31	8.00E+01
21	1976	304577	3.715+03	29.34	62.14	3,86175E+62	3.715+33	C • .	1.44F-38	-4.78E+32	9.54E+]1	8.30E+01
21	1077	.101096	3.715+03	21.20	82.94	3.644562+02	3.716+83		1.44E-08	-4.70E+02	9.545+31	3.00E+Q1
21	1.079	. 103696	7.715+03	29.87	61.17	3.89J31F+32	3.71E+03	C .	1.44£-08	-4.705+32	9.54E+J1	8.00E+61
21	1 2 7 0	.10568?	3.715+03	25.02	68.97	3.791296412	3.715+93	0 .	1.44E-38	-4.78E+32	9.545+01	8.00E+G1
21	1031	.000611	7.715+97	14.35	85.08	2.373925+12	7.715+83	G •	1.44E=08	-4.70E+02	9.542+31	8.90E+01
21	1133	្ត ្រក្នុងប្រធាន	3.71 ±+87	15.96		2.360572+02	3.71E+03	C •	1.44F-08	-4.70Et32	9.542+31	8.0JE+01
?1	1024	.070457	3.715+13	39.09	76.BA	2.909496+32	3.715+03	0.	1.44E+J8	-4.705+02	9.545+31	8.303+61
21	100	.J010F#	3.71E+63	22.26	99.14	2.433372+72	3.718+03	0.	1.446-08	-4.702+02	9.545+31	8.00E+01
21	1996	.ng=72	3.715 ≥ 0 ₹	79,77	51.65	2.938185+92	3.716+03	3 ·	1.445-98	-4.785+32	9.546+01	8.00E+G1
21	1347	.062719	3.74F+53	39.27	79,99	2.614352+92	3.71E+93	€ 💉	1.445-38	-4.705+02	9.545+31	3.005+01
21	1389	197595	3.712+63	39.68	50.33	2.97+102+92	3.715+03	o .	1.445-03	-4.70E+02	9.545+31	5.80E+01
21	1339	012723	3.715+03	36.30		2.801345+82	3.715+03	0.	1.44E-08	-4.70E+62	9.54E+01	8.00E+61
21	1034	.003709	7.712+03	37.01	82.92	1.345607+02	3.71E+33	7 • ·	1.44E-08	-4.795+02	9.545+01	8.90E-01
21	1007	.105846	3.716+03	31.63		1.313076+02	3.715+03	Ú •	1.44E-38	-4.78E+92	9.54E+81	3.00E+01
21	1024	.48[747	7.715+93	54.64	72.17	2.143495+12	3.719+93	Π.	1.445-08	-4.705+02	9.54E+J1	8.00E+01
21	1100	.003719	3.712+03	39.53	90.27	1.453525+32	3.715+03	r •	1.44E-38	-4.705+02	9.545+31	8.00E+01
21	1 396	915514	3.71E+73	5°.62	32.82	2.146375+32	3.712+03	D •	1.445-08	-4.70=+J2	9.545+01	8.30E+C1
21	1907	.0[644]	3.715+03	49.69	74.75	1.723105+32	3.715+03	C •	1.448-08	-4.782+62	9.545+01	3.302+01
81	frne.	-041059	3,715+37	59.17	30.85	2.18191E+02	3.71F+03		1.44E-J3	-4,785+82	9.54E+01	8.90E+01
21	1990	.023784	3.715+03	55.12	47.23	2.15341E+J2	3.716+03	0.	1.446-08	-4.705+02	9.548+31	8.005+01
21	1110	007574	3.71E+03	10.53		5.223375+32	3.715+83	3.	1.44E-08	-4.70E-02	9.54E+01	3. 00€+01
21	1111	.10115	3.716+03	17.53	93.15	5.221775+12	3.715+03	0 •	1.44E-08	+4.70E+J2	9.54E+01	8.28E+61
21	1170	.000190	3.71€+03	11.90	13.71	4.642145+02	3.715+03	0 •	1.44F-08	-4.70E+32	9.545+01	8.30E+01
11	1934	• 000504	4.055+04	97.43	128.39	5.13434E+02	-3.46E+03	-3.51E+03	4.02E+04	-3.37E+02	-2.42E+02	-8.515+01
12	1930	.909144	4.465+94	85.95	122.65	7.43175E+02	-1.385+03	-3.89E+03	4.44E+04	-5.63E+02	-3.21E+02	-1.07E+02
		•;						,				
	1670	.000204	4.156+94	85.10	67.38	4.31459E+02	-3.46E+03	3,515+03	4.02F+04	-3.38E+02	2.42E+02	-8.518.01
3	1030	.909144	4.4FE+D4	84.32	68.93	5.705985+02	-1.38E+83	3.895+03	4.44E+14	-5.63E+02	3.21E+02	-1.076+02

150	<u>1</u> 737	.000051	2.80 <u>ም</u> +በዓ	73.16	109.00 4.659235+02	-7.72E-08	1.986+04	1.98E+34	-3.82E+02 -7.21E	+01 -7.21E+0	1
_	1 ^ 7 B	.037478	2.905+04	79.85	91.45 2.62492E+92	-7.72E-08	1.985+34	1.98E+04	-3.82E+02 -7.21E	+31 -7.21E+0	1
150 155	1972	.00.4445	2.805+04	78. A 3	91.45 2.645015+02	-7.72E-03	1.985+94	1.98E+04	-3.82E+J2 -7.21E	+01 -7.21E+D	1
		.04418F	7. RUE+34	72.76	92.45 1.561205+92	-7.72E-08	1.985+84	1.980+04	-3.82E+02 -7.21E	+01 -7.212+0	1
350	1747	101819	2.8(5+34	71.26	92.40 1.59+756+72	-7.725-03	1.985+04	1.935+04	+3.822+02 -7.21E	+01 -7.21E+0	1
157	1382 1797	• 181919 ·	2.805434	52.72.	95.01 7.640068+01	-7.72E-08	1.985+04	1.98E+04	-3.82E+02 -7.21E	+31 -7.21E+0	1
153	1997	.016159	2.80E+94	51.91	94.61 8.30+J9E+01	-7.725-18	1.93E+04	1.935+54	-3.82E+32 -7.21E	+31 -7.21E+C	1
153	1095	.93EZEE	2.865+04	21.77	44.27 1.541365+82	-7.72F-08	1.98E+04	1.98E+04	-3.82E+02 -7.21E	+31 -7.215+0	1
150 157	1995 1997	• no2n33	2.901.454	32.73	55.78 1.245955+02	-7.722-03	1.9AE+04	1.982+94	-3.82E+02 -7.21E	+01 -7.215+0	1
1 7 7	1.15	• · · · <u>· · · · · · · · · · · · · · · ·</u>	20 - 27	3 4.7	2,,,,						
454	4070	. 097456	p. 01E+14	59.27	119.35 3.101518+82	-7.725-08	1.980+94	1.98E+J4	-2.07E+02 -7.21E		
151	1970	.264467	2.80E+84	64.10	93.61 1.059336+82	-7.72E-03	1.982+64	1.98E+34	-2.075+02 -7.215		
151	1979 1973	* 5 5 5 4 4 5 7 * 6 1 7 6 3 7	2.905+04	52.47	93.45 1.103185+02	-7.725-08	1.985+04	1.985+04	-2.07E+32 -7.21E		
151			2.905+64	55.25	94.72 8.12030E+01	-7.72E-08	1.985+04	1.93E+04	-2.075+62 -7.21E	+01 -7.21E+0	1
151	1 4 9 3	_406654 .0150a*	2.375+04	54.15	94.79 8.747682+31	-7.725-18	1.985+04	1.935+04	-2.075+02 -7.215	+31 + 7.215+0	1
171	1982		2.85E+34	73.93	92.29 1.67204E+02	-7.72=-08	1.992+24	1.396+04	-2.07E+92 -7.21E	+J1 =7.215+0	1
151	1693	. 118 229	2. 956+54	72.51	02.25 1.733+uF+û2		1.955+64	1.98E+94	-2.07E+32 -7.21E	+31 -7.215+0	1
151	1172	. 1007355	2+715714	1117	V2815 18135401102						
	4070	. 233778	2.80#+94	32.93	147.55 1.387655+02	-7.725-03	1.935+04	1.936+94	-3.256+61 -7.219	+01 -7.215+6	1
152	1030		7.882+84	16.73	111.45 1.455315+32	-7.72F-18	1.985+34	1.985+94	-3.25E+01 -7.21E		
157	1(5)	.120507	7.50E+64 2.8[E+04	17.55	143.10 1.222125+92	-7.72E-3A	1.982+04	1.99F+04	-3.25E+01 -7.21E	+01 -7.215+0	11 <u>+</u>
15?	1003	. <u>u24408</u>	2.905+04	17.73	185.86 9.753245+41	-7.725-95	1.90=+04	1.98E+04	-3.25E+01 -7.21E	+31 -7.215+0	11]
152	1065	. 004268	2.205+04	67.63	93.45 1.2152? E+0?	-7.72E-13	1.985+04	1.98E+04	-3.258+01 -7.215	+91 -7.21E+8	1
152	1375	.135559	2.90=+04	65.93	93.14 1.253095+52	-7.73E-08	1.985+04	1.93E+94	-3.25E+01 -7.21E	+81 -7.215+0	1
152	1072	.107121		37.6A	52.43 1.80341E+92	-7.72E-39	1.98E+04	1.995+34	-3.25E+91 -7.21E	+31 -7.215+0	1
1"2	1375	.007798	2.90.+94	47.91	54.12 1.56537F+02	-7.72E-08	1.985+04	1.98=+94	-3.255+01 -7.215		
157	1277	.004555	2.8.F+04	59.27	07.70 1.225445+52	-7.725-38	1.095+74	1.985+34	-3.25E+01 -7.21E	.+31 -7.21E+0	1
157	1373	.010376	7.85=+04 7.865+94	79.05	91.71 2.277.95+02	-7.725-08	1.935+04	1.986+04	-3.25E+01 +7.218	+91 -7.21E+0	i
152	. j e	.191795		75.9n	91.69 2.261325+02	-7.726-08	1.957+64	1.95E+04	-3.256+01 -7.218		
152	1192	.000107	2.80E+64	56.71	64.96 2.697215+02	-7.725-18	1.987+64	1.985+34	-3.25E+01 -7.216	+31 -7.21E+0	i
157	1305	.091102	2.30E+94	54.59	73.77 2.44+956+02	-7.725-16	1.984+04	1.985+04	-3.252+01 -7.216	+31 -7.21E+0	1
157	1037	• 101533	2.005+04	42.03	91.15 3.336575+02	-7.72E-08	1.985+04	1.98E+04	-3.25E+01 -7.21E		
152	1300	.001164	2.065+34	41.21	91.14 3.352405+02	-7.722-08	1.995+04	1.996+04	-3.25F+01 -7.216	+31 -7.215+0	1
157	1382	, nr n n 1 6	2.865+14	66.54	72.13 3.594955+92	-7 723-03	1.935+84	1.98F+04	+3.25E+01 -7.21E		
151	1195	.000167	2_856+04	15.43	01.72 1.48552F+02	-7.728-15		1.93F+04	-3.255+01 -7.218	+31 -7.212+0	11
100	1137	.grgr59	2.862+94	19.4	41. 5 1.4443014 41F	- • • • • • • • •	10 //	2000			
=			3 . 5 . 6	22.78	148.33 1.21751F+32	-7.72E-03	1.982+04	1.935+14	1.432+92 -7.215	+31 -7.21E+0	1
153	1000	•142973	2.655+04	13.00	105.23 1.486525+92	-7.727-98	1.982+04	1.956+24	1.435+02 -7.219	+91 -7.212+0	1
15*	1025	118390	2.855+34	17.31	46.22 1.46371E+u2	-7.725-08	1.985+34	1.985+34	1.435+32 -7.215	+01 -7.21E+D	1.
153	1271	. 109J17	2.805+34		142,92 1,905658+02	-7.725-08	1.985+06	1.985+34	1.436+02 -7.216		
157	1932	.224179	2.965+64	33,7 <u>2</u> 80.56	91,34 2,871565432	-7.72F-03	1.905+84	1.986+14	1.43E+62 -7.21E		
157	1070	.grg 354	Z.40E+04		91.35 2.841?55+02	-7.7?E-03	1.09=+64	1.985+34	1.435+02 -7.215		
153	1772	.113132	2.9(5+0.	79.51	91.37 3.934255+32	-7.72E-13	1.385+04	1.935+34	1.435+02 -7.216	+31 -7.21E+0	1
157	1939	.01)379	2.857+34	83.24	90.97 3.947695+02	-7.726-03	1.985+84	1.985+34	1.43E+02 -7.215	+91 -7.216+0	31
153	1982	•330007	2.906+34	A2.54	A6.44. 0.24.046.48.	- r g r g L - 9 3	74 300 4	+ * 32 - 10 T			

SHUTTLE CONTAMINATION STUDY (SPACE LARZ (RECIEVING SHUTTLE))

MODEL	2	נויר יי	N٩	ST	ĒΦ	=	1
PRODES	505	STNG	UD:	. 70	ም ታ በ	111	DATE

BK402 E 2 c	21 Mit 1925	SE THE THE O	•									
NODE I	NOTE J	F(T,J)	AFFA	THETI	THETJ	RADIUS	NORMA	L VECTOR	I	POSI	TION VECTOR I	
153	1090	. 101327	2.805+04	84.75	95.76	5.05312E+92	-7.728-98 1	.98E+04	1.98E+04		-7.21E-81 -7.21E	
153	1992	. ^ ე პ ^ u 2	7.80E+74	94.20	00.75	5.06957E+02	-7.72E-08 1	.•98E+84	1.9%E+04	1.436+02	-7.21E+01 -7.21E	701
154	1133	.]որդե1	?.ò[=+04	94.60	91.01	4.4155CE+02	-7.72F-08 -1	98=+04	1.98E+04		7.21E+01 -7.21E	+01
154	1973	200408	2.675+64	79.35	91.46	2.624925+02	-7.725-33 - 1	. 98E+84	1.93E+04	-3.826+02		
154	1071	. 19374.5	2.00-+14	74.93		2.645015+32	-7.72E-08 -1	.982+84	1.98E+04	-3.82E+02	7.21E+01 -7.21E	
154	1000	344185	2.855+8%	72.75	92.45	1.561292+82	-7.72E-98 -1	. 98°+04	1.986+54	-3.82E+32	7.21E+01 -7.21E	
154	1381	001819	2.854.44	71.76	92.40	1.594756+02	-7.725-08 -1	.4985+04	1.98F+04	-3.82E+02	7.215+01 -7.21E	
154	1093	430157	2.8(5+3+	E2.72		7.643365+91	-7.725-08 -1	. - 98E+04	1.93E+04	-3.825+02	7.216+31 -7.2164	
1 4	1001	.016158	2.865+04	51.91	94.61	3.30409E+91	-7.725-08 -1		1.98E+04	-3.825+02		
154	1 9 0 F	165755	2.875+04	21.77	44.27	1.541066+82	-7.72E-09 -1	.98E+C4	1.98£+64	-3.822+92	7.21E+91 -7.21E	
154	1190	.062033	2 9 5 + 3 4	32.70	56.78	1.246955+02	-7.72F-03 -1		1.98E+04	-3.825+02	7.216+31 -7.215	+01
4	2 . 30	• • • • • • • • • • • • • • • • • • • •	• •						4 005.64	0.035.53	7.215+01 -7.215	-01
15≉	1770	111455	7.802+04	30.₹±		7.70460E+82	-7.725-08 -1	1.955+14	1.958+04	-2.975+62		
175	4377	: 254457	2.8[2+34	54.10		1.059335+02	-7.72E-08 -1	965+04	1.93E+04	-2.37E-02	7.21E+01 -7.21E	
155	1371	. 313177	7.502+44	62.47		1.195185+12	-7.725-3d - 1	L.93E+84	1.986+04	+2.07E+02	7.21E+01 -7.21E	
15=	1080	446454	2.865+54	55 + 25	94.72	8.120095+01	-7.725-98 -1	L.985+04	1.99E+04	-2.37E+62	7.215+31 -7.21E	
155	1051	. ប្ <u>ម</u> ន្ទក់គង	2.90=+44	54.15	94.38	8.747685+01	-7.72E-98 -1	L.985+64	1.985+34	-2.075+02	7.212+01 -7.212	
155	1093	214220	2. Q["+j4	77.93	92.29	1.672946+02	-7.725-03 -1	L.93=+34	1.98E+34	-2.075+02	7.21E+01 -7.21E	
175	1071	36, 955	2.8GE+04	77.59	92.25	1.703405+92	-7,725-08 -1	.95E+04	1.93E+04	-2.37E+02	7.21E+31 -7.21E	+U1
								005464	4 000.06	-3.25E+01	7.215+01 -7.215	• fi.4
155	1 ጣማን	. <u>2</u> 72778	2.3uE+94	66.07		1.121655+82	-7.725-00 -1		1.955+04	-3.25E+01		
156	1 35 0	125536	2.865+34	32.49	72.35	7.621332+31	-7.72I-38 -1			-3.252+01	7.21E+91 -7.21E	
156	1057	0.24.270	2.802+14	15.48		8.699174491	-7.725-99 -1		1.988+34	-3.255+01		
156	1065	104269	2 # 45 + 6 4	17.73		9.75324=+31	-7.72E-03 -1	1.95541.4	1.900.734	-3.25E+01		
156	1373	4 4 2 3 3 4 9	2.177+54	67.63	03.15	1.215224+32	-7.725-08 -1			-3.25E+01	7.215+31 -7.215	
1 5 6	1071	. 107101	?. A P <u>=</u> + P 4	65.03		1.253995+02	-7.725-08 -1			-3.255+01		
156	1076	1.097348	2.953+94	2 . D d		1.839415+02	+7.72E-08 -1	1.945.734	1.985+84	-3.25E+G1		
156	1978	014555	2.81 <u>@</u> +34	47.01		1.565375+02	-7.729-03 -1	1.956 7.14	1.98F+14	-3.25E+01		
156	4 173	.303976	24865+04	59.27		1.225442+02	-7.72E-98 -1	1.955+14	1.956+34		7.21E+01 -7.21E	
156	1093	• 9 ^1 395	2.807+04	73 ₊ 46		2.237495+62		1 935 704	1.995+04			
156	1381	• 0 0 1 1 0 7	2.90 <u>-</u> 1+04	75.97		2.261325+32	-7.72E-08 -1	1.045+84		-3.25=+01	7.215+01 -7.215	
156	1366	.001199	2.965.484	66.71	64.95	2.607715+32	-7.72E-J6 -1	1.905.01	1.98E+04	-3.256+01		
156	1.959		2, A[= +] 4	£4.58	. 73.77	2.444976+12	-7.725-98 -1	1.98=+04	1.98E+34 1.98E+34	-3 255 404	7.21E+91 -7.21E	
156	1990	<u>. 697104</u>	2.868+04	82.03	91.15	7.33537E+02	+7.725-08 -1			-3.25E+01		
156	1001	. <u>100014</u>	2.902+04	81.21		3.352478+02	-7.725-08 -1		1.98E+04	-3.25E+01		
156	4106	.200167	2.80~+04	66+54		3.59+935+02			1.986+84		7.215+31 -7.215	
156	1177	• 3 30 957	7.807+84	17.95	91.76	1.443345+02	-7.725-18 -1	1.985+64	1.98E+04	-3.296701	1.572431 -1.57E	TUL
	4000	449694	2.408+04	25.62	57.76	7.573+1E+01	-7.72E-08 -1	1.985+04	1.988+34		7.212+31 -7.218	
157	1903	142621	2.00 <u>0</u> +04	36.2 7	68.40	7.766185+11	-7.729-18 -1	1.986+84	1.935+04	1.432+02	7.21E+01 -7.21E	+G1
157	1000	.123011	2.802+04	17.41		1.439116+02			1.986+04	1.435+02		
157	1771	090917	2.30F+04	56.73		1.151682+12	-7.725-33 -1		1.99F+04	1.435+02		
157	1 ኮሚባ	224179	2.807+44	67.56		2.821565+02			1.9AE+34	1-43E+32		+01
157	1070	. 950354 210032	2.805+34	77.61		2.84)265+42			1.985+34	1.43E+02		
157	1971	.336632	2.402+34 2.305+44	83.24	07.07	1 4 4 4 4 4 7 E F 1 7 1	-7.72E-03 -1		1.035+34		7.215+01 -7.215	
157	1387	†មាលប្ _ទ ប	740"E 764	11 7 # 62 14	-9 - 91	Service - Pt		 · - ·	·			

MODEL = CONTAM STEP = 1 SHUTTLE CONTAMINATION STUDY (SPACE LAB2 (RECIEVING SHUTTLE)) PROCESSING OPERATION DATA

NODE I	MODE 1	F(T,J)	AREA	THETI	THETU	RADIUS	NOS	MAL VESTOR	1 .	POSITION VECT	OR I
157	1091	. 100007	2.805+84	82.54	99.97	3.947698+02		-1.98E+04			-7.21E+01
157	1 กฎว	909027	2.805+04	84,75	90.76	5.05912F+02	-7.725-08		1.98E+04		-7.21E+61
157	1001	,000072	2.005+34	94°5J	90.75	5.063575+12	-7.72E-08	-1.985-04	1.98E+04	1.43E+02 7.21E+01	-7.21E+01
140	1050	"uSrada",	3.275+14	12,75		4.652725+02	3.272+04	ۥ	1.278-97	-4.73E+02 -5.10E+31	
440	1353	,903112	3.275+94	10.24		4.703155+32	3.275+04	9 .	1.275-07	-4.70E+02 -5.10E+01	
143	1365	• jazza3	3.27_+94 -	7,32	7.32	4.129658+02	3.27£+94	^•	1.275-37	-4.70E+02 -5.10E+01	
143	1077	.900355	3,275+04	20.58	92.21	3.623585+02	3.27E+04	0 .	1.27E-17	-4.70E+02 -5.19E+01	
140	1074	.000048	3.275+04	4.79	92.75	7.403915+02	7.27E+04	C •	1.27E-07	·-4.70%+02 -5.102+31	
140	1675	9 0 2 4 1 6	3.271+04	18.98	71.65	3.59343E+J2	3.27E+04	ű .	1+27E-3?	-4.70E+02 -5.10E+01	
143	1975	102468	3.278+34	2.77	87.25	3,491985+32	3.275+04	C •	1.27F-07	+4.702+02 -5.10E+01	
148	1077	u*1869	3.275+94	17.37	73.5	7.561792+02	3.275+34	€.	1.275-07	-4.705+02 -5.10E+01	
147	1979	.011971	3.275+54	7.14	25.32	3,424585+02	3,275+64	0.	1.27F-07	-4.70E+02 -5.10E+01	
143	1079	107207	3.274+84	12.53	81.79	3.483915+92	3.271+04	6.	1.27E-37	-4.705+02 -5.19E+31	
140		00185	3.275+64	27.47	03.09	2.593458492	3.27E+84	0.	1.278-07	-4.70E+32 -5.10E+31	
147	1394	000177	7.277+74	7.13	97.53	2.275395+02	3.27E+34	0.	1.275-07	-4.70E+02 -5.10E+01	
143	1395	207173	7.27#+8+	27.37	63.60	2.542622+12	7.275+34	0 .	1.275-97	-4.70E+62 -5.10E+01	
147	1006	167965	3.27.+04	4.17		2.263998+02	3.275+64	2.	1.27E-37	-4.70E+02 =5.1CE+31	
143	1047	_ា្ក5§កក	3.275+C4	25.21	66.17	2.495705+02	3.275+04	0.	1.27E-07	-4.70E+C2 -5.10E+01	
147	1088	915010	3.278+34	10.58	83.75	2.297415+32	3.275+94	C •	1.278-37	-4.70E+02 -5.10E+01	
140	1129.	11,9525	7.275+44	18.49	76.47	2.381955+12	3.278+0+	6.	1.276-07	-4.70E+02 -5.10E+01	
149	1007	001177	3.272+04	49.77		1.695275+82	3.275+04	0.	1.275-37	-4.70£+02 +5.10£+01	. -3. 99E-10
147	1994	.563474	3.276+04	14.20	96.97	1.153705+02	3,275+04	в.	1.278-37	-4.7JE+02 -5.1GE+01	-3. 9 92-10
147	1005	\$2¥380	₹.275+44	46.29	45.66	1.617495+02	7.275+04	G • ·	1.27E-37	-4.705+32 -5.10E+01	. - 3.99≝+10
147	1005	.023765	7.270+14	8.37	81.72	1.133355+72	3.276+04	Ü.	1.278-07	-4.702+02 -5.105+31	
14 14ú	1)07	219489	3.276+14	47,56	49.19	1.542691+02	3.272+04	0.	1.275+07	-4.70E+32 -5.10E+01	-3.99E-10
140	1 1 1 1 4	019214	7.275+14	20.85	77.96	1.195778+32	7.275+94	G •	1.27E-37	-4.70E+02 -5.10E+01	-3.99E-10
147	1.090	0.3564	7. 277+34	34.94		1.343175+02	3.27=+34	0.	1.27E-37	-4.73E+02 -5.1GE+01	3.99E-10
140	1170	300000	3.275-64	3.66	17.77	4.633405+32	3.27£+04	C •	1.275-07	-4.735+02 -5.10E+31	-3.99E-10
175	ቀ ግር በ	.105990	7. 275+u4	56.79	145.03	1.605825+02	-3.275+04	û .	1.27E-07	2.30E+02 -5.10E+01	3.995-10
_		.1257+9	7.275+74	43.03		1.540765+02	-3.275+84	0.	1.27E-37	2.302+02 -5.105+01	3.99E-10
135	1029 1200	.1/3 45 .101154	3.27E+04	34.69		1.3**93E+92	-3.27E+04	Ü.	1.276-07	2.302+02 -5.102+01	3.995-10
175 175	1131	100067	7.275+04	17.49		2.574985+02	-3.27=+84	0.	1.27E-07	2.302+02 -5.108+01	

								0.355.30	4 465403 -4 345404
796	1073	.012930	2.412+04	64.97	63.43 3.257074+02	-3.40E-07	2.95E+04 -1.23E+04		1.155+02 -1.315+01
796	1070	779647	2.418+04	71.13	. 108.10 2.11528E+02	-3.402-07	2.08E+04 -1.23E+04		1.155+02 -1.315+61
796	1:72	. 81¢694	2。每生产+04	₫ ? •88	77.64 1.693545+0?	-7.40E-C7	2.085+04 -1.235+34	-2.95E+02 ·	-1.15E+02 -1.31E+01
79.6	1383	.927129	2.412+04	23.98	117.57 1.423766+92	-3.402-07	2.03E+04 -1.23E+94		-1.156+02 -1.316+01
795	1392	.331458	2.417+04	71.28	56.34 6.562365+31	-3.495-97	2.0 AE+04 -1.23E+34		-1.15E+02 -1.31E+01
706	1 กับกั	123699	2.41E+84	25.50	115.58 1.46899E+92	-3.496-57	2.085+84 +1.23E+04		-1.15E+32 -1.31E+G1
796	1 502	132511	2.415+54	73.93	61.26 7.563855+01	-3.402-07	2.085+04 -1.23E+04		-1.15£+32 -1.31E+81
705	1005	162626	2.417+34	37.15	27.60 1.915275+02	-3.405-07	2.005+04 -1.23E+04		-1.15E+32 -1.31E+61
705	1,97	071693	2.415-04	28 95	37.42 1.761375+12	-3.435-07	2.33E+04 =1.23E+04		-1.15E+J2 -1.31E+61
795	1131	100037	2.41=404	77.77	71.39 3.111.65+32	-3,402-37	2.085+54 -1.235+34	-2.95[+02 -	-1.15E+02 -1.31E+01
745	. 13	• J G G * 3 *	142						•
70,3	1011	. P25169	2.415+34	47.42	140.73 1.894515+92	-3.405-07	2.085+64 -1.236+84		-1.15E+J2 -1.31E+01
738	1920	121160	2.415+4	39.37	138.29 1.829765+92	-3,402-87	2.08E+U4 -1.23E+04		-1.15E+82 -1.31E+01
798	1211	329904	2.415+04	64.74	52.09 1.40 445E+J2	-3.495-37	2.08E+04 -1.23E+34		-1.15E+02 -1.31E+01
709	1030	955255	2.415+14	74.48	176.17 1.955175+32	-3.402-07	2.08F+04 -1.23E+04		-1.15E+02 -1.315+01
70 R	4000	121193	2.415+34	41.1)	144.93 1.835475+12	-3.405-07	2.735+64 -1.235+84		-1.152+02 -1.315+01
7114	1060	007245	2.41-+34	49.80	144.10 1.73776#+42	-3.405-07	2.08E+04 -1.23F+J4	5.51E+31 ·	-1.156+02 -1.316+01
7.77	1870	.011151	2.41=-04	54.4)	106.77 2.277816+02	-3.495+07	2.09E+04 =1.23F+04	5.50E+01 ·	-1.158+02 -1.315+01
798	1372	.012452	2.41=+34	93.67	73.95 1.893318+92	-3.432-07	2.08E+04 -1.23F+04	5.50E+01	-1.15E+J2 -1.31E+O1
•	1 7 7 5	.931799	2.416+74	57,85	49.01 2.583945+02	-3.40E-07	2.08E+04 =1.23F+04	5.502+01	~1.15E+J2 ~1.31E+G1
700	~ ~	• • .	2.415+34	51.53	55.62 2.47776 E+u2	-3.405-07	2.58E+94 -1.23E+94	5.50E+01	-1.15E+32 -1.31E+61
798	1777	.ციუგუ7 "გიიითგ	2.44F+04	36.00	83.38 3.02JT0E+02	-3.40E-07	2,785+04 -1.235+04	5.5JE+01	-1.15E+82 -1.31E+C1
70,9	1992		2.41=+04	54 10	64.94 3.496394+02	-3.476-07	2.08E+64 =1.23E+04	5.50F+0i	-1.15E+02 -1.31E+01
743	1045	993457	2.412+84	63.18	65.82 3.41347E+02	-3.435-07	2.989+94 -1.238+04	5.5)E+91	-1.155+02 -1.315+01
70A	1097	107497		87.09	84.98 4.157335+32	-7.4ûE-07	2.385+64 =1.236+84		-1.15E+02 -1.31E+01
~98	1092	. 300013	2.417.714	70.21	67.88 4.51067F+12	-3.48E-07	2.08E+04 -1.23E+04	5.50E+61	-1.15E+32 -1.31E+81
793	1)35	.000166	2.418+04		121.67 1.54851E+02	-3.40E+07	2.085+04 -1.236+04		-1.15E+02 -1.31E+01
799	1170	"ህርጠር ችን	2.417+14	62.70	151.01 1.944915405	-31436401	2000004 10000	20702 00	
			t						
				,					•
711	1020	.an6350	2.905+)4	45.53	72.30 6.60579E+0#	6.576-07	-2.99E+04 -7.98E-集8	1.17E+02	1.025+02 -4.715+01
711	1673	029520	2.90.+04	74.45	74.45 8.24296E+31	6.57E-0#	-2.99E+84 -7.98E-18	1.175+02	1.02E+32 -4.71E+01
11.1	10.0	. 0 / 5 3 . *							

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⇒ag	1031	. 000316	4.156+97	54.51	96.71 6.895386+82	2.94=+03	2.295-06	2.94E+03	+5.83E+02		2,255+02
ขดู้จั	1057	205192	4.15.7.63	56.55	42.34 5.153915+02	2.94E+03	2.295-38	2.94E+03	-5.88E+02	-1.08E-08	2.25E+02
460	1257	0,00502	4.155+63	67.55	92.53 5.969085+0?	2.94E+03	2.295-08	2.94E+33	-5.88E+92	-1.08E-08	2.252+02
790	1 165	000417	4.15E+G3	69.26	24.25 5.77732F+02	2.945+03	2.292-08	2.94E+33	-5.385+62	-1.08E-08	2.252+62
720	1777	909+27	4.102+93	69.96	55.57 5.091395+02	2.94=+03	2.296-08	2.94E+03	-5.89E-02	-1.08E-J3	2.255+02
303	1.74	4-3027	4.15=+03	59.95	65.57 5.091995+32	2.944+03	2.205-08	2.94[+33	-5.382+32	-1.082-08	2.255+62
797	1 775	0,0612	4.155+03	72.05	74.32 5.171735+92	2.94E+83	2.295-00	2.946+13	-5.335+02	-1.085-03	2.25E+02
4:3 u	1376	121177	1 + - 3	72.05	74.91 5.173736+32	2,945+03	2.295-38	2.94E+93	-5.532+02		2.252+02
799	1 17 7	1,0548	4.1°E+°3	75.33	66.78 5.31608E+02	2.945+03	2.295-18	2.945+03	-5.832+02	-1.0ơE-Jò	2.251+02
200	4,778	227 221	4.157+13	75.37	65.38 5.31608E+J2	2.945+93	2.295-08	2.94E+03	-5.98E+32	-1.352-38	2.252+82
*29	1070	301212	4.152+.3	76.53	58.50 5.764245+02	2.94E+03	2.295-08	2.94E+03	-5.88E+82	-1.36E-98	2.255+02
799	1383	100105	4.157+07	75.76	59.09 4.099758+92	2.34E+33	2,295-58	2.94E+13	-5.382+72	-1.386-18	2.251.02
30.)	1 455	300917	4 १९० - ३ र	79.19	71.15 4.195176+32	2.945+13	2.29E-88	2.945+33	-5.835+02	-1.03E-38	2.256+02
399	1937	913575	+.1°°+03	82.90	60.95 4.374175+02	2.942+93	2.295-08	2.94E+J3	-5.882+32		2.255+02
343	1117	្រុំក្នុកអ្នក	4.155+03	94.22	50.78 4.432435+02	2.945+33	2.295-03	2.94E+33	-5.33E+32		2.255+02
393	1002	.acnaa1	+.150+03	87.63	48.92 3.234735+32	2.945+03	2.29E+08	2.942+33	-5.83£+J2	-1.085-08	2.252+82
740	1995	117000	4.155+03	0:.73	55.97 3.32343E+02	2.945+03	2.292-36	2.945+03	-5.38E+02	-1.98£-18	2.252+02
717	1007	nngnng	4.155+03	94.29	53.13 3.55103E+02	2.34E+03	2.295-38	2.948+13	-5.885+02	-1,0aE-0a	2.258+02
3 a u	1111	3097993	4.155+03	57.83	77.17 6.463635+02	2.945+73	2.29F-08	2.94E+13	-5.88E+02	-1.98E-13	2.255+02
390	1177	•00303.	4.152+03	61.56	6.97 5.967455+02	2,945-93	2.296-08	2.946+03	-5.80£+02	-1.085-03	2.252+02
	1 , .	•			·						
1009	1324	. 267777	1.84E+34	57.54	53.00 6.333365+01	-1.315-07	1.845+94	1.566-07	1.75c+42		-1.702+81
1-00	1211	იიეგივ	1.845+04	159.33	66.03 9.65912E+01	-1.317-07	1.842+94	1.56F-07	1.75E+02	3,15£+11	-1.785+61
.	1 41										
1 62)	1209	. 130007	1.921+04	105.27	129.52 7,91675#+11	1.69E+84	8.995+93	1.36E-07	1.195+02		-8.00E-10
1723	1211	110149	1.925+04	109.27	50.49 7.91576E+01	1.595+04	8.995+03	1.36F-37	1.195+02	5.57E+01	-8.JOE-10
		•									
			,								
		4						0 (05 00	A 665.34	5.335+01	5.225-19
1050	1 በዜተ	.122611	2.102+54	75.39	45.73 4.047335+01	-1.785+04	1.125+34	2.62E-08	-1.56E+01	5.33E+01	5.22E-10
1857	+ 177	. PC^55P	2.105+04	22.30	96.89 1.166645+02	-1.79E+04	1.128+04	2.625-08	-1.665+01	D+33E431	2055570

SHUTTLE CONTAMINATION STUDY (SPACE LAB2 (RECIEVING SHUTTLES)

MODEL = CONTAM STEP = 1 PROCESSING OPERATION DATA

NOUE I	моле Л	F(I,J)	ARE1	THETT	THETJ	PADTUS	NOR	MAL VECTOR	I	POSI	TION VECTO	R I	
1050	1374	.000437	2.16-54	80. R1	94.65	1.725786+02	-1.78c+04	1.12F+04	2.62E-98	-1.66E+01	5.33E+31	5.22E-10	
- 1050	1075	.113960	2.10E+04 -	26.19	82.95	1.145335+02	-1.78E+04	1.12E-04	2.62F-98	-1.66E+01	5.33E+01	5.225-10	
1050	1776	114771	2.102+04	78.46		1.645965+02	-1.795+94	1.126+04	2.625-38	-1.66E+J1	5.33E+01	5.22E-10	
1050	1377	.011198	2.415404	40.33	78.98	1.21451E+02	-1.78E+04	1.125+04	2.62E-08	-1.655+81	5.33E+01	5.22E-10	
i bel	1078	.003515	3.107+84	74.05		1.571715+02	-1.78=+04	1.125+04	2.62E-38	-1.56E+31	5.33E+31	5.22E-10	
1053	1970	.015976	2.106+04	60.38		1.37323E+02	+1.78E+04	1.12E+04	2.62E-88	-1.66E+01	5.33E+01	5.22E-10	
1059	100	.009143	2.1(5+0+	26.70	93.50	2.291562+62	-1.795+04	1.12E+04	2.62E-08	-1.662+01	5.335+01	5.22E-10	
1050	ี้กัด4	101143	2.105+04	61.74		2.62178E+02	-1.78E+04	1.122+84	2.62E-08	-1.66E+81	5.332+01	5.22E-10	
1050	<u>โกคร์</u>	914553	3.10E+04	29.09	95.47	2.283784+32	-1.79E+N4	1.125+04	2.62F-08	· =1.66E+01	5.33E+01	5.225-10	
4 6 15 16	र्गेवह	114553	2.105+04	50,74	63.34	2.569566+02	-1.79E+34	1.126+04	2.625-03	-1.552+61	5.336+01	5.22E-10	
irsa	4407	nq 2534	2.105+0+	35.26		2.21-29:+12	-1.73F+B4	1.125+04	2.628-38	-1.665+01	5.332+01	5.225-10	
1020	1 1 8 A	•กก์จร์สัน	2.105+94	55.36		2.521385+92	-1.785+04	1.12E+04	2.625-08	-1.66E+31	5.332+31	5.22E-10	
4000	10.0	• Պես էր ։	2.132+04	45.84		2.40332E+62	-1.735+94	1.125+04	2.625-38	-1.66E+J1	5.33E+01	5.225-10	
1-50	1703	.003047	2.105+74	28.45		3.42546E+92	-1.73E+D4	1.125+04	2.626-38	-1.56E+01	5.33E+01	5.22E-10	
1,50	1394	177,47	2.10=+34	52.86		3.65484E+02	-1.73F+84	1.125+04	2.62F-08	-1.66E+01	5.332+01	5.225-10	
1057	น้ำวร	001705	2.16:+04	30.09		3.41 726F+02	-1.735+04	1.12E+64	2.626-08	-1.669+81	5.33E+01	5.22E-10	
1 1 7 5 9	1195	.001705	2.105+04	51.34		3.613295+72	-1.78£+C4	1.126+04	2.628-08	-1.662+01	5.33E+01	5.22E-10	
1 /3 1 m = 1	1037	171721	2.105+04	73.03		3.443758+02	-1.785+04	1.125+04	2.62F-03	-1.65E+01	5.332+71	5.225-10	
1050	1,30,4	.001721	2.156-84	43.77		3.59423E+02	-1.78_+64		2.62F-08	-1.65=+01	5.33E+01	5.22E-10	
1050	1093	. 202202	2.105+04	41.83		3.50?19E+02	-1.785+04	1.125+04	2.626-08	-1.66E+91	5.33E+01	5.22E-10	
1050	1177	្តាក្នុកបួត - កក្ខកបួត	2.115+94	111.62		7.355565+01	-1.732+04	1.12E+E4	2.52F-08	-1.665+01	5.332+01	5.22E-10	-
1050	1171	.gr=917	2.116+04	111.62		7.35556=+01	-1.78E+94	1.12E+J4	2.62E-18	-1.66E+81	5.332+01	5.225-10	140
. (0 - 3	1 1 - t.	• 3. 31.	* 11 C + 5 =	1114.56	. • • • •	11(1,0,0,0)							_
1050	1077	.100135	4.755+63	59.52	94.13	9.899112+01	3.595-09	4.755+03	3.69E-08	-4.6JE+51	2.56E+91	2.425-10	
1050	10-4	000136	4.75E+87	139.93	96.06	1.32511E+32	3.695-08	4.752+03	3.69E+18	-4.602+91	2.56E+C1	2.422-10	
1067	1075	.019272	4.756+33	54.64	F4.42	3.34359F+91	3.697-08	4.75=+03	3.69E-18	-4.505+01	2.562+31	2.42E-10	
1050	1075	119222	4.757+07	137.21	44.33	1.243546+32	7.695+98	4.755+03	3.69E-08	-4.6CE+91	2.56E+J1	2.42E-10	
1760	1077	015230	4.755+03	77.49	62.97	9.64764E+11	3.692-08	4.755+03	3.69E-08	-4.632+01	2.56E+01	2.425-10	
1050	1778	115158	+.757+03	127.43	46.32	1.185305+32	3.695-08	4.755+03	3.69E-18	-4.60E+01	2.562+01	2.42E-10	
1550	1177	125855	4.7FE+07	104.23		1.04111E+02	3.695-03	4.755+33	3.696-08	-4.60E+01	2.565+31	2.422-10	
1157	1043	nnnngo	4.755+03	75.82	93.92	2.04399E+02	3.695-08	4.755+03	3.69E-98	-4.60E+31	2.56F+31	2.42E-10	•
1 15 0	1394	.003605	4.757+37	117.24	93.60	2.230285+02	3.695-08	4.75E+03	3.695-03	-4.60E+01	2.56E+01	2.42E+10	
1063	1145	001556	4.755+33	74.56	78,40	2.02?96E+32	3.69E+08	4.75E+83	3.69E-18	-4.605+01	2.56E+01	2.42E-10	
1060	1116	.900556	4.75=+93	114.71	65.95	2.182905+02	3.695-08	4.75E+03	3.69E-08	-4.60E+01	2.562+01	2.42E-10	
1960	1927	903744	4.75 = +3 3	84.11	77.57	2.037305+02	3.69E+08	4.755+93	3.69E-08	-4.60E+01	2.562+01	2.42E-10	
1667	1.119.9	003344	4.755+03	109.59	67.61	2.151715-92	3.69£-98	4.752+03	3.69E-08	-4.60E+91	2.56E+11	2.42E-10	
1060	1)44	000467	4,755+03	97.09		2.07416E+32	3.695-68	4.75E+03	3.692-08	-4.50E+31	2.56E+01	2.42E-10	
1060	1003	.007091	4.755+83	80.47	92.54	3.16471E+92	3.594-08	4.75E+03	3.69E-08	-4.60E+01	2.56E+01	2.425-10	
1763	1104	001001	4.755+03	107.98		3.28535E+92	3.69E-08	4.755+63	3.69E-18	-4.63E+01	2.56E+01	2.42E-10	
1850	1195	ეიკიონ .	4.759+03	92 ,6 9	82.53	3.147935+02	3.89E-08	4.75E+03	3.69E-09	-4.60E+31	2.56E+11	2.425-10	
1060	โกลล์	911995	4.75E+03	106.20	74.13	3.253015+02	3.695-08	4.752+03	3.69E-05	-4.50E+01	2.56E+31	2.42E-10	
1050	1097	000051	4.755+03	95.20		3.157825+02	3.695-03	4.75E+63	7.69E-08	-4.60E+01	2.56E+31	2.42E-10	
1060	1009	909051	4.752+03	112.39	7 - 31	3+23156c+92	3.697-08	4.755+03	3.69E-08	-4.60E+91	2.56E+01	2.42E-10	
1 06 7	1099	.000071	4. 755+93	94.62		3.181125+02	3.695-03	4.755+63	3.69F-38	-4.60E+01	2.56£+01	2.42E-10	
1050	1130	.991093	4.75E+83	187.15	71.53	6.60779E+01	3.695-ņ8	4.75=+03	3.695-06	-4.60E+01	2.56E+01	2.42E-10	
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MOREL = CONTANT STOP = 1 PROCESSING OPERATION DATA

SHUTTLE CONTAMINATION STUDY (SPACE LABS (PECIEVING SHUTTLE))

NOPE I	Mont J	F(I,J)	ልም ፻ል	THETT	UTEHT	PAUTUS	NO	RMAL VECTOR	I	POSI	TION VEGTO	RI	
1655	1075	.9×1426	2.365+37	43.50	54.68	9.56785E+01			1.50E-08	-6.08E+81	6.60E-09	-1.28E+01	
1055	1976	.081426	2.365+33	43.50		9.55785E+01		-2.915-08	1.50E-00	-6.03E+01		-1.28E+01	
1065	1077	.071249	2.16E+07	78.45	52.18	8.86105E+91	-2.065+33	-2.915+P8	1.50E-08	-6.082+31	6.606-09	-1.28E+01	
1,065	1778	.371248	2.052+77	39.45	52.13	A.86105E+01	-2.966+03	-2.91E-08	1.50E-38	-6.08E+01	6.60E-09	-1.28E+01	
1065	15*9	.142823	2.16E+03	31.72	59.28	8.153995+31	-2.06E+03	-2.917-08	1.50E-08	-6.08E+01		-1.28E+01	
1065	1005	.944975	2.06E+17	19.75	71.87	1.943685+92	-2.065+03	-2:91E-08	1.508-18	-6.03E+01	6.60E-09	-1.28E+01	
1044	1135	.014935	2.065+03	19.75	71+87	1.94358E+02	-2.165+33	-2.91E-08	1.50E-08	-6.08E+01	6.6JE-39	-1.28E+01	
1065	1097	.911897	2.065+03	16.72	73,52	1.914978+92	-2.065+03	-2.915-86	1.502-03	-6.03E-01	6.60E-09	-1.285+61	
1055	1644	· 011907	2.162+93	10.72	73.52	1.91+975+02	-2.065+03	-2.91E-08	1.50E-38	-6.332+01	6.602-09	-1.28E+01	
1065	1080	₽P??749	የታ ባ ለፍተሰኝ	13.17	76.83	1.883515+02	-2.352+03	-2.91F-C8	1.53E-08	-6.03E+01	6.6DE-09	-1.26E+01	
1655	1905	าอุรสุดร	2.362+03	12.49	78.52	3.045065+82	-2.365+03	-2.91E-08	1.52F-08	-6.08F+01	6.68E+39	-1.282+61	
1055	1135	. 10 KA 57	2.165+03	12.49		3.045068+02	-2.062+03	-2.912-08	1.53F-08	-6.38E+01	6.602-39	-1.28E+81	
1065	1397	.003071	2.062+37	19.50	79,55	3.0246QF+02	-2.35F+03	-2.91E-03	1.50t-0a	-6.18E+01	6.60E-19	-1.28E+61	
1065	1998	.003001	2.162+63	13.56	79.55	3.02469E+02	-2.065+03	-2.91F-08	1.50E-06	-6.08E+01	6.605-09	-1.28E+01	
1065.	1499	.005161	2.JF2+]3	8.21	81.79	3.00478E+02	-2.06E+03	-2.915-08	1.50E-Ja	-6.03E+01		-1.28E+81	
•												•	
1673	1170	.009221	5.84€+02	73.34	41.20	1.417045+02	C .	C •	6.84E+02	-1.30E+02	7.58E+01	1.40E+01	لسا
1074	1130	. 110236	6.84E+62	73.83	43.04	1.453576+92	0.	. •	6.846+02	-1.302+02	-7.58E+01	1.408+01	41
1075	1076	• 369758	5.175+03	15.79		1.31309E+02		-4.90E+03	1.63E+93	-1.30E+02		-7.50E+00	
1675	1977	•015740	5.175+03	79.61		3.976492+01		-4.93E+63		-1.305+02		-7.50E+0C	
1075	1370	.555797	5.175+63	35.56	24.69	1.174438+02	6.93E-09	-4.90=+03	1.63E+03	-1.3JF+02	6.57E+31	-7.50E+00	
1 774	1970	• 8 387E9	5.17E+03	54.68		8.14.4425.431		-4.982+83	1.63E+03	-1.30E+02		-7.50E+00	
1575	1736	•0325 <i>22</i>	5.176+07	44.23		1.733942+02		-4.90E+93	1.63F+03	-1.30E+02		-7.50£+00	
1075	1797	.O*1545	5.175+07	86.5ª		1.207365+02		-4.90E+03	1.632+13	-1.302-02		-7.50E+00	
1075	1988	•3220KK	5.175+03	54.74		1.635718+02		-4.90E+03	1.63E+13	-1.305+02		-7.50E+00	
1075	ቲባጸዓ .	•127328	5.175+03	71.36		1.431345+02		-4.905+03	1.63E+03	-1.335+32		-7.50E+00	
1975	1005	.336480	F.171+83	51.74		2.631345÷02		+4.905+33	1.63E+03	-1.30E+02		-7.50E+60	
1975	1397	. 037047	5.175+33	88.22		2.314425+02		-4.90E+03	1.63E+83	-1.30E+02		-7.50E+00	
4 ሮፖር	1039	• F 17 332	5,175+03	58.15		2.56469E+12		-4.985+83	1.63F+13	-1.306+02		-7.50E+00	
1075	1799	.702172	5.175+83	79.79		2.421107+92		-4.905+03	1.63E+03	-1.30E+02		-7.505+00	
1975	1130	.009373	5.17 <u>E</u> +73	57.18	44.50	1.441735+02	6.93E-08	-4.935+03	1.630+43	-1.3CE+02	6.57E+31	+7.5CE+00	
1076	1977	.355797	F.179+93	35.56		1.17+402+02	-3.355-08	4.976+03	1.63E+03		-6.56E+01		
1526	1973	.315740	5.175+03	79.61	-	3.975495+31	-3.352-08	4.985+63	1.53L+03		-6.56E+01		
16'6	1079	.383759	5.172+73	54.6A		3.14442E+91	-3.355-08	4.902+03	1.630+13		-5.56=+01		
1076	1795	. 032622	5 17 1 7 1 1 0 3	44.23			-3.35E-00	4.905+73	1.63E+03		-6.565+31		
1076	1097	• 922955	5.17=+^3	54.24		1.636715+32	-3.35E-08	4.902+03	1.635+03		-6.562+31		
1076	1988	.061345	5.17E+73	36 • 59		1.207365+02	-3.35=-08	4.932+03	1.63E+33		-6.56E+01		
1676	1049	.023828 .	5.17=+03	70.36		1.481046+32	-3.35E-09	. 4 • 93 5 + 93	1.63E+13		-6.56E+31		
1076	1395	006480	5 • 17E+73	61.74		2.63144+12	-3,35E-03	4,935+03	1.53E+03		-6.565+01		
1076	1907	.003332	5.175+03	58.16	65.41	2.564692+02	-3.35E-08	4.90E+03	1.635,+13	-1.30E+02	-6.56E+11	-7.50E+00	

SHUTTLE CONTAMINATION STUDY (SPACE LABZ (RECIEVING SHUTTLE))

MOOFL	=	CONT	AM	clec	=	1
POUCE						

DOUCECS	ברת ממלא	RATTON DATA					•	•					
MODE T	איס חד ל	F(TpJ)	APEA	THETT	LT3HT	RADIUS	иор	MAL VECTOR	I	9051	ITION VECTO	R I	
7 1			_		. 7 70	2.31442E+02	-3.355+05	4.986+03	1.63F+03	-1.30E+02	-6.56E+01	-7.50E+00	
1076	1]08	■ 9 C Q N 4 T3	5.17E+93	89.22	7/1/0	2.314466406	-3.35E-08	4.978+63	1.63E+03	-1.30E+U2	-6.56E+01	-7.50E+00	
1 ሲፖ 6	1340	.307177	5.176+03	78.79	78.52	2.42110E+02	-3.355-08		1.63E+03	-1.30E+02	-6.56E+31	-7.50E+00	
1876	1137	• 967377	5.17E+03	54,59	45.97	1.477848+02	-34 196 - 90		10002.00	-			
							. 742-04	-3.04E+03	2.745+03	+1.30E+02	4.65E+31	-4.24E+C1	
1077	1779	161°30	4.JOF+83	41.95	41.95	9.703308+01	4.315-00	-3.045+03	2.74E+93	-1.30E+02	4.652+31	-4.24E+01	
1077	1.173	.093268	4.092+33	57.97	73.98	4.87784F+71	4.315-00	7 05047703	2.74E+03	-1.305+02	4.65E+01	-4.24E+G1	
1177	1090	. 10105°	4.392+73	85.74	86,59	1.207365+02	4.31E-98	-3.04E+03	2.74E+03	-1.305+02	4.65E+31	-4.245+01	
1077	1095	.324988.	4.905+03	49.31	54.34	1.676715+02	4.315-05	-3.046+63	2 745-01	-1.302+62		-4.24E+01	
1077	1039	19517	4.192+13	61.95	61.96	1.471222+02	4.315-08	-7.345+03	2.74E+03	-1.305+32	_	-4.245+01	
1677	1039	.013+32	4.000+03	79.04	83.81	1.233415+82	4.31=-78	-3.348+03		-1.30E+82		-4.24E+01	
1077	1005	ngru54	4.705+03	A7.76	88.22	2.314425+7?	4.315-08	-3.04E+03	2.745+03	-1.302+02		-4.24E+01	
1077	1195	3.4037	4.005+03	65.41	68.15	2,564598+32	4.315-06	-3.04#+63	2.74E+33	-1.33E+02	4.656.01	-4.24E+01	
	1508	. 30.2231	4.002+23	77.69	73.69	2.45?38E+02	4.315-38	-3.04E+53	2.74E+03		6 65E+31	-4.24E+01	
<u>1</u> 077 1077	1090	.99346	4.195+07	37.68	85.72	2.333766+02	4.315-38	-3.04d+73	2.74E+03	-1.30E+02		+4.24E+81	
	_	.000074	4.00-+73	51.92	51.62	1.553615+92	4.715-08	-7. 34E+03	2.74E+03	-1.30F+JZ	4.005	-411-101	
1077	1131	* u 630 v #	4.5									4 255404	
		100000	4.09=+93	57.97	73,98	4.837345+01	-4.31E-98	3.04E+03	2.745+03	-1.30c+02	-4.655+91	-4.24C+CI	
1073	1070	.397268	4.105+03	49.31	54.34	1.634715+02	-4.31E-08	さんじゅうそうべ	2.74E+33	-1.305+02	-4.65E+71	-4.24E+U.L	
1073	1085	, n > a O <u>e</u> B		45.7J	26.59	1.20735#+82	-4.317-03	3.342+13	2.74E+03	-1.33E+92	-4.65E+91	-4.245.401	
1079	1395	_ n 1 1 a 5 m	4. u o (+ 0 3	61.96	61.06	1.471225+02	-4.31E-08	7.94E+63	2.746+03	-1.30E+92	-4.65E+31	-4.245+01	
1079	1097	. 119507	4.10F+93		37 31	1.233.15+02	-4.31E-03	3,049+03	2.746+03	-1.30E+02	-4.65E+31	-4.242+01	14
1673	1719	.310172	4.]05+03	78.74	60.00	2.56+692+02	-4.31E-09		2.74E+03	-1.30E+J2	-4.65E+31	-4.24E+01	~
1079	1195	.014837	4.005.03	65.41	00047	2.314425+82	31F-08	3.04E+03	2.74F+33	-1.30E+02	-4.65E+01	-4.245+01	
1078	1195	.073]54	4.005+03	87.76		2.46238402	-4.315-38		2.74E+J3	-1.30E+G2	-4.655+31	-4.245+61	
1070	1797	. Tu 2231	4.352+73	73.50		2.333765+02	-4.315-08	3.94E+03	2.748+33	-1.335+92	-4.65E+01	-4.24E+01	
1578	1199	.090435	4.00-407	93.68	85.77		-4.316-08		2.746+13	-1.305+02	-4.65E+31	-4.24E+01	
1073	1137	.790177	4.396+03	49.77	25.50	1.583345+02	-44 316-33	D	4				
		,						9.	7.878+03	-1.30E+02	3.495-99	-5.57E+01	
1079.	1335	.015649	7.37=13	69.13	70 • 3F	1.401746+02	9.	C .	7.87F+83	_	8.495-19	-5.57E+01	
1679	1,085	.017649	7.87=+0.7	. 69.83	75.76	1.401345+42	3.	0.	7.87E+03	-1.30E+02		-5.57E+01	
1079	1997	.nrc272	7.675+37	87.91	78.04	1.23341F+02	0.		7.871.03			-5.57E+01	
1079	1088	.05272	7.875+03	83.81	78.84	1.273415+42	0 •	3.	7.876+93	-1.30E+92		-5.57E+81	
1379	11115	101424	7.375+43	78.52	78.79	2.4211CF+92	ŭ •	0.	7.87F-93	-1.30E+G?	8.49E-39	-5.575+01	
1079	1 006	201425	7.875+93	73.52	79.79	3 2.421105+02	n .	ů.	7.87E+03	-1.305+02		-5.57E+C1	
1070	1307	.000211	7.872+03	95.72	5 3. 6ª	1 2.37]756+92	9•	<u> </u>		-1.30E+G2		-5.57E+01	
1679	1 ก็วล	000211	7.875+63	90.72	8₹.69	1 7.37376F+92	0.	ū.	7.875+03	-14 400405	. 5.436 63	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
10 9	1 17 - 11		•										
÷													
	•			•				_		- 2 665482	7.58E+J1	1.405+01	
4007	1136	. 2000 58	6.845+02	80.41	25.89	3 2.43]386+0?	9.	e.	6.84E+32	-2.445.702	. 1.300401	11400.01	
1087	Line	• 6 0 0	,	•								4 605404	
	4435	. უღიელ9	0. ALE+32	89.51	27.04	+ 2.45456d+02	0 =	C .	6.94E+32	-2.446+82	2 -7.58E+01	T#40E40T	
1084	1137	*リビリンプ	OF THE TOE			**						T CAT. 05	
_			E 177107	18.39	12.30	9 1.31300=+02	6.935-03	-4.905+63			6.57E+01	*/*5UE+UU	
1085	1096	.169758	5.17E+03	79.51	76.80	4 7.97549E+01	6,335-05	-4.93E+03	1.63E+33		6.575+31	-7.50E+80	
1095	1097	. 915749		35.66	24.69	9 1.174435-02	6.935-68	-4.90E+C3	1.63E+03	-2.44E+08	£ 6.57E+01	-7.50E+00	
4 µ 4 €	1999	.055707	5.17E+13	124110	24.0	4							

MODEL = CONTAM STEP = 1 PROCESSEING OPERATION DATA

SHUTTLE CONTAMINATION STUDY (SPACE LAPS (RECIEVING SHUTTLE))

NOOT I	HONE J	F(T+J)	APEA	THETI	THET	RADIUS	NOR	MAL VECTOR	Ť	POSI	TION VECTO	R I	
1085	1299	. 9 88759	5.17°+03	54.58	53.71	9.14442E+01	6.935-98	-4.90E+03	1.635+03	-2.44E+02			
1085	1306	n 32 c 2 2	5.172+33	44.23		1.733545+02		-4.9J2+G3	1.636+03	-2:445+02	6.57E+01		
1000	1307	101545	5.175+03	86.59		1.20736F+02	6.93L-08	-4.90E+03	1.63E+03	-2.44E+02	6.57E+91		
1000 1005	1000	.322056	5.175+63	54.34		1.635718402	6.935+08	-4.90E+03	1.635+03	-2.442+02	6.575+31		
1005	1044	.027828	5.175+03	77.75	1 2 4 0 -	1.401045+02		-4.90E+03	1.635+03	-2.44E+32	6.57E+91		
1100 1200	1137	.703178	5.175+63	71.39		2.44767E+72	6.93E+08	-4.30E+03	1.635+13	-2.445+02	6.575+91	-7.50E+00	
1356	1 ካዲማ	.355797	5.175+03	35.56	24.69	1.174402+02	-3.352-08	4.900+03	1.63E+03	-2.445+02	-6.56E+01	-7.505+00	
1000	1000	015740	5.175+03	79.61	76.84	3,975492+01	-3.355+98	4.90E+23	1.63E+33	-2.445+12	-6.566+]1	-7.505+00	
1085	1949	.paa750	5.172+93	54.63		8.144425+31	-7.35F-19	4.905+03	1.63E+33	-2.442+32	-6.565+01	-7.50E+00	
1000	1397	.n.256.25	5.175+67	44.23		1.73384F+1?	-3.357-08	4.955+23	1.635+03	-2.44E+32	-6.56E+31	-7.5QE+B Q	
-	1297	• 522355	5.175+23	54.74		1.636718+32	-3.352-08	4.905+03	1.63E+03	-2.445+02	-6.56E+31	-7.505+00	
1 7 3 0	1034	.026.395 .034.545	5.175+73	95.59		1.207362+92	+3.35E+09	4.905+03	1.63F+33	-2.445+02	-6.56E+01	-7.505+00	
1044		•	5.175+07	70.36		1.401745+72	-3.35E-08	4.905+03	1.63E+03	-2.445+02	-6.56E+01	-7.50E+60	
1[86 1886	1590 1170	.º23d2A :90°153	5.17E+03	F9.72		2.453535+72	+3.355-09	4.922+03	1.67E+03		-6.56E+01		
4837	1 0 8 R	.061000	4.197+83	41.95	61.95	9.397705+01	4.31E-08	-3.342+03	2.74E+03	-2.445+02	4.655+81	-4.24E+01	
. 1737		.097268	4.056+07	57.97		4.837945+01		-3.04F+f3	2.748+13	-2.445+02	4.55E+J1	-4.24E+01	
1087	1139	•	4.792+93	A5.79		1.207356+32		-3.045+03	2.74E+33	-2.44E+02	4.65E+J1	-4.24E+G1	
1047	1375	. 441950	4.102+33	49.31		1.636715+02		-3.04F+07	2.745+33	-2.44E+32	4.65E+01	-4.245+01	
1087	1996	. 92398s	4.102433	51.05		1.471225+02		+3.94E+03	2.74E+37	-2.445+02	4.655+01	-4.24E+01	14
1087	1328	119607		79.04		1.273416+02		-3.045+03	2.74E+13	-2.44E+82	4.65E+31	-4.245+01	
1587	1190	.010172	4.005+93	67 . 50		2.513935+02		-3.94E+03	2.748+03	-2.44E+02	4.65E+01		
1 5 8 7	1137	• 7 m G <u>1</u> 1 D	4. 40=+43	り/•う い	~ a • 0 3	24-11333-402	4.516 -63						
1038	1939	. 193258	4. 395+67	57.97	73.98	4.P37345+81	+4.315-08		2.74E+33		-4.652+01		
1003	1005	, n = 3 G 3 R	4.50=+03	43.31		1.636715+72	-4.315-98	3.642+63	2.74E+03	-2.445+03	-4.655+01	-4.245+61	
1046	1016	.011950	4.597+03	A □ • → J	86.59	1.207365+02	-4.315-88	3.049+03	2.745+13		-4.658+01		
1003	1037	.0126)7	4.107+03	61.96	61.95	1.471226+02	-4.315-38	3.346+03	2.74E+03		-4.552+91		
1039	1390	.913132	4.70=+03	73.34		1.233416+02	-4.312-08	3.94E+03	2.74E+03		-4.65E+ J 1		
1049	1170	301119	4.002+03	66.35	74.72	2.57335E+02	-4.319-08	3.945+83	2.74E+03	-2.44E+02	-4.65E+01	-4.245+61	
1049	1395	.015640	7.97E+07	69.48		1.401045+02	6 •	e.	7.875+03	-2.44E+02			
1 100	1 20 6	215649	7.97E+03	69. A6	79.76	1.401745.02	0.	0.	7.872+03	-2.445+02		-5.57E+01	
1049	1307	205272	7. d7E+03	83.81	78.04	1.27341F+02	٥.	ů.	7.87F+03	-2.445+32		-5.57E+01	
1039	1)72	005272	7.87E+03	87.51	70.84	1.239416+02	0.	0.	7.87F+03	-2.44E+02		-5.575+61	
4043	1170	996117	7.975+03	64.27		2.53402E+02	0.	C •	7.87E+03	-2.445+32	9.385-09	-5.572+01	
•				•									
1093	1130		5.34E+12	83.40	27.05	3.523926+02	0.	ē.	6.84E+02	-3.582+02	7.58E+01	1.40E+01	
1 094	1179	· dulusõ	6.84E+82	83.43	20.78	3.543775-02	0.	C •	6.84E+02	-3.58E+02	-7.5dE+01	1.40E+01	
1025	1005	.15975R	5.17=+03	18.79	18.39	1.31300E+92 3.97649E+01		-4.90F+03 -4.90E+03		-3.58E+02	6.57E+01 6.57E+01	-7.50E+00 -7.50E+00	
1 705	1007	.015740	E. 175+87	79.61	10.04))+5/5456FUI	0.735-04	-4.502763	14036.00	0000000	J. J. L. U.		

SHUTTLE CONTAMINATION STUDY (SPACE LARZ (RECIEVING SHUTTLE))

MODEL = CONTAM STEP = 1 PROCESSENG OPERATION DATA

NODE I	HODE J	F([,])	AFEA	THETT	THETJ	PADIUS	иоч	RMAL VECTOR	I	POSITI	ON VECTOR	I
1095 1095 1095	1093 1199 1130	.055797 .088759 .100037	5.17E+03 5.17E+03 5.17E+03	35.65 54.68 77.23	53.71	1.17440F+02 3.14442F+01 3.53592E+J2	6.935-08	-4.98E+93 -4.90E+03 -4.90E+03	1.63E+03 1.63E+03 1.63E+03	-3.582+02 6	6.57E+01 - 6.57E+01 - 6.57E+01 -	7.50E+08
1095 1096 1096 1096	1007 1308 1009 1130	.055797 .015747 .015759 .000036	5.175+03 5.175+03 5.175+03 5.175+0*	35.66 77.61 54.63 76.05	76.84 57.71	1.17449E+02 3.97649E+01 3.14442E+01 3.55947E+u2	-3.35E-08 -3.35E-08 -3.35E-08 -3.35E-08	4.90E+G3 4.905+03 4.90E+03 4.90E+03	1.63E+03 1.63E+03 1.63E+03	+3.58E+02 +6 -3.58E+02 +6 -3.58E+02 +6 -3.58E+02 -6	5.56E+01 - 5.56E+71 -	7.502+00 7.50E+00
1097 1007 1007	1004 1090 1170	.061689 .397268 .397042	4.19E+13 4.10E+13 4.19E+33	41.95 57.97 74.40	73.98	9.301105+01 4.87794F+01 3.585605+02	4.315-09	-3.04F+03 -3.04E+03 -3.04E+03	2.74E+03 2.74E+03 2.74E+03	-3.582+02 4	+ 65E+31 - + 65E+31 - + 65E+31 -	4.24E+01
1034 1094	1139 1130	.gazz68 1480ge.	4.309+97 4.09E+03	57,97 73,48		4.83784E+01 3.59577E+02	-4.312-08	3.04E+03 3.04E+03	2.74E+03 2.74E+03	-3.58E+02 -4		
1 4992	1135	.001845	7.875+93	72.17	27.44	3.509362+32	0.	C +	7.87E+03	-3.58£+02 1	L.03E-08 -	5.578+01

3.5.3 Spacelab-3/Orbiter Data Matrices - Figure 7 depicts the computer drawing of the modeled Spacelab-3 configuration indicating the nodal numbering assignments assigned to the primary Spacelab surfaces. (The Orbiter nodal assignments are depicted in Figure 4.) This is followed by a summary listing and description of the Spacelab-3/Orbiter nodal surfaces. The ensuing computer printouts contain the Input Data, Viewfactor Data, and Geometric Relationship Data matrices for the Spacelab-3/Orbiter configuration.

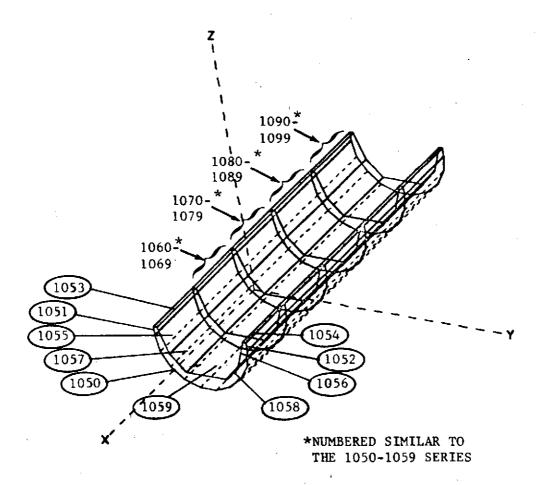


Figure 7. Primary Spacelab-3 Nodal Surface Number Assignments

море	RCS	A PSA	ALPH	EHISS	SURF. TYPE	ACTIVE	COMMENTS
145	¤በባ y	2.6875+03	0.	0 •	TRAPEZOIO	TOP	+Y REAR SIDE TAPER
146	волу	2.587E+03	ů.	ý.	TRAPEZOID	BOTTOM	- Y. REAR SIDE TAPER
707	803Y	2.827E+01	j.	0	DISC	BOTTOM	*****JULY & EVAP**3 IN. RAD*
708	BODY	2.8275+01		o.	91SC	TOP	JULY & EVAP3 IN. RAD.
147	no3 Y	1.8582+04	6.	0.	PARABOLOID	OUTSID	TOP ENGIN
14.4	POTY	1.8585+44	0.	0.	PARABOLOID	OUTSIO	+ Y ŁNGIN
149	የሰጋሃ	1.9595+04	U •	0.	PARABOLOTO	OUTSID	-Y EŃGIN
23	PAGY	7.7115+03	0.	0.	OISC	TOP	Y OHS SEALER
21	Bank	3.7115+03	0.	2.	DISC	TOP	+Y OHS SCALER
722	BOOY	2.5735+34	0.	J.	RECTANGLE	BOTTOM	BACK RECT 7.350FG
23	BODY	1.6741+04	0.	0.	DISC	TOP	REAR END HALF DISK
407	PNJY	2.9272+01	r.	3.	DISC	ŢΟΡ	PACK SINE EVAPORAT, UPDATED
1 5	903Y	2.827=+01	c.	0.	0150	TOP	REAR END EVAPORATOR
1 3	807¥	1.8875+04	6.	0.	TRAPEZOIO	BOTTOM	LEFT FRONT WING A
11	POSY	4.)45_+64	e.	9.	TRAPFZOID	T ግብ	LEFT MIDDLE WING BACK.B
141	BODY	2.59yE+84	C •	a.	PECTANGLE:	10₽	AS INNER WING
12	8~J v	4.4625+04	0.	ο.	RECTANGLE	†0₽	LEFT BACK RECT. WING C
142	4 600	1.4346+04	0.	0.	RECTAMBLE	TOP	INNER HING C
4.7	477¥	1.7125+04	C •	O +	154055010	TOP	LEFT WING TAIL EDGE
1	P.O ግ Y	1.8785+04	Γ.	ð.	TRAPEZOTO	TOP	FRUNT WING TRIANGLE PT.A.58
2	BOTY	4.8452+04	0.	G.	TRAPEZOID	POTTOR	**** HIDDLE WING TRAP, RT 8 **
143	807Y	2.5995+0+	€.	0 -	RECTANGLE	ROTTOM	B +Y PECTANSLE HING
3	BUJA	4 . +0 7 = + 04	ú.	0.	PECTANGLE	POTTOM	9ACK WING PEST. PTC .129
144	9077	1.4345+84	Ù.	0 -	RECTANGLE	MOTTOR	. INNER WING C RECT
4	9004	1.0125+04	0.	0.	T74057010	MOTTOR	WING TAIL FLAP RT 1453,1507
150	BUTY	2.8045.04	- U .	-0.	CYLINDER	INSTOF	BAY AREA CYLINDER
151	ዋሰብ ሃ	2.8045+64 4		-0.	CYLINDFR	INSIDE	BAY AREA CYLINOFR
157	POTY	2.8045+04 -	- C •	-0.	CYLINDER	INSIDE	RAY ARLA CYLINDER
153	ዓባ ን ሃ	2.964E+C+ -	- C •	-0.	CYLINDER	INCIDE	BAY ARFA CYLINDER
154	PCAY	2.8.4-+04 -	- ខ -	-0.	CYLTNOFR	INSTOE	BAY AREA CYLINDER
155	ቦ (ያ:3 ¥	2.874E-04 -	- û .	-0.	CYLINDER	INSTOF	BAY ARCA CYLINDER
156	ዋበባሃ	2.4045+04 -	-0.	-J.	CYLTNOFR	INSIDE	BAY AREA CYLINDER
157	80JY	7.8942+84 -		-0.	CYLINDEP	INSIDE	BAY AREA CYLINDER
140	ያ የ	3.2596+04 -		-3.	DISC	100	END BAY AREA OISK
135	400¥	3.269E+04 -	- D -	-0.	DISC	TOP	FRONT BAY APEA DISK
122	BOTY	1.5275+04 -	- C •	-0.	PAPABOLO10	-011810	VERY NOSE COME
123	BUJY	1.5276+04 -	-0.	-0.	PARAGOLOID	OUTSID	VERY NOSE CONE
124	BOOY	1.527E+34 -	· O	-3.	DIOTOGRADA	U1510	VERY NOSE COME
125	የበባ∀	1.5272+04 -	· ·	-1.	PAPABOLOID	OUTSID	AESA HOSE CONE
221	₽∩⋾ϒ	4.6735+03 -	-c.	~0.	CALINDES	OUTSIN	MOSE CALINDER
721	400 t	4.677E+07 -	- C .	-J.	CALINDES	nutsio	NOSE CYLINDER
722	₽∩ J¥	4.077E+03 -	0.	- n.	CAFLANDES	OUTSID	NOSE CALINDES
323	ዓ ሰባ ሃ	4.6735+03 -	-	-0.	CALIMUED	CUTSID	NOSE CYLTNIEP
324	8001	4.6735-03 •	- C -	-0.	CALINGES	OUTSID	NOSE CYLINDER
325	8234	4.677E+03 *	0.	-0.	CYLINDEP	りいけるこの	NOSE CYLINDER
325	800Y	4.6732+03 -	-0.	-9.	CYLTNDEP	OUTSID	NOSE CYLINUER

MODE	BCS	AREA AL	PH EHTSS	SURF. TYPE	ACTIVE	COMMENTS+
727	900 Y	4.573E+03 -0.	-0.	CYLINDER	OUTSID	NOSE CYLINDER
329	BOOY	4.6735+03 -0.	-0.	CYLINDER	OUTSID	NOSE CYLINDER
329	RODY	4.673E+03 -0.	-0.	CYLINDER	OUTSIO	NOSE CYLINDER
-	PO7Y	4.6735+03 -0.	-3.	CYLINDER	OUTSID	NOSE CYLINDER
370	8007	4.6735+03 -0.	-0.	CYLINDER	OUTSID	NOSE CYLINDER
331	9004	4.6735+03 -0.	-0. -0.	CALINDER	OUTSID	NOSE CYLINDER
33? 227	אַטטיי אַטטיי	4.673E+D3 -0.	-0.	CYLINDER	OUTSID	NOSE CYLINDER
333		4.673E+C3 -C.	-3.	CYLINDER	OUTSID	NOSE CYLINDER
374	ዓሰባ¥ 2004	4.6735+03 -0.	-0.	CYLINDER	OUTSID	NOSE CYLINDER
375	8004			PARABOLOID	OUTSID	HOOD PARTIAL BACK
34.9	4UU 4	3.8396+03 -0.		PARABOLOID	OUTSID	HOOD PARTIAL BACK
341	BOOY	4.022E+03 -0.	-0.	PARABOLOID	OUTSID	HOOD PARTIAL BACK
342	BOOY	4.197E+03 +0.	+0.	PARASOLOID	001310	HOOD PARTIAL BACK
343	8074	4.366E+03 -0.	-Ù.	PARASOLOID	OUTSID	HOOD PARTIAL BACK
344	900 Y	3.838E+03 = 0.	÷0.	PARABOLOIO	OUTSID	HOOD PARTIAL BACK
345	BUDY	4.0225+03 -0.	-0.	CICACEARA	001310	HOOD PARTIAL BACK
346	ROJY	4.1972+03 -0.	-3.	PARABOLOIO	OUTSID	HOOD PARTIAL BACK
347	BODY	4.3662+03 -0.	-0.			HOOD PARTIAL BACK
348	BUOA	3.838E+03 -0.	-0.	PAPAGOLOID	OTSTO	HOOD PARTIAL BACK
349	800 Y	4.j225+03 -0.	-0.	PARABOLOTO	OUTSID	HOOD PARTIAL BACK
350	ROĐ Y	4.1975+03 -0.	-ù.	PARABOLOID	OUTSID	HOOD PARTIAL BACK
351	ያርካየ	4.366E+03 -0.	- j.	PARABOLOID	OUTSIO	
752	ዓበባሃ	3.33°5+03 -C.	-0.	PARAGOLOID	OUTSID	HOOD PARTIAL BACK
353	¤በግ¥	4.0225+03 +0.	- O •	PARABOLOID	OUTSID	HOOD PARTIAL BACK
354	40 U.A	4.1976+03 -0.	-0.	PARABOLOID	OUTSID	HOOD PARTIAL BACK
355	PUTY	4.366E+u3 =0.	- 0.	PARABOLOID	OUTSID	HOOD PARTIAL BACK
360	HUÜA	1.5935+03 -0.	-0.	PARABOLOIO	OUTSID	HOGNIH
361	BUJY	1.825E+03 -0.	– ŋ •	CIOJOEAFAG		WINDOW
352	BOOK	2.031E+03 -0.	/ - 0.	PARABOLOIO	OUTSID	MINOOH
353	POUY	2.218E+Q3 −0.	-0.	DIOJOPARA	OUTSID	MINDOM
364	BOOY	1.593F+03 - 0.	-3.	PAPABOLOIO	OUTSID	MINDOM
365	BUD 4	1.925E+03 - 0.	-0.	PARABOLOIO	OUTSID	HINDOW
366	BODY	2.0312+03 -0.	-0.	PARABOLOID	OUTSIO	німбон
367	#nŋ y	2.2185+03 -6.	- 0.	PARABOLOID	0112100	HINDOM
36.9	BODY	1.5932+03 +0.	-0.	DIOJOPAGAG	OUTSIO	HINDON
36,9	ይበባየ	1.4256+03 +0.	- 0•	PARABOLOID	OUTSIO	MINUOM
370	BOU Y	2.031E+03 -0.	-J•	PARABOLOID	OUTSIO	WINDOW
371	የሰባያ	2.2185+03 -0.	-0.	PARABOLOID	OUTSID	WINDOW
372	RODY	1.593E+03 -0.	-û.	PARABOLOID	OIPTUO	WINDOW
373	8074	1.825E+03 -0.	-0.	PARABOLOID	DUTSID	HODNI
774	900.4	2.0315+03 -0.	-0 .	PARABOLOID	OIZTUN	MINDOM
375	BOTY	2.2185+03 -0+	-0.	PARABOL OID	OUTSID	WINDOW
401	RODY		900 .900	RECTANGLE	BOTTOM	BODY BOTTOM (FRT) 4 1
40 2	PODY	1.+395+05	9ŋō .9ŋঢ়	RECTAMBLE	BOITOM	300Y BOTTOM (REAR) 402 .
182	RODY	3.971E+04 -0.	-3.	CYLINDER	OUTSIA	OMSPODC1
172	BODY	3.9175+04 -0.	- J .	CYLINDER	OUTSIO	0MSP00C2
781	RODY	2.470E+04 0.	J.	CATINUED	INSIDē	Y SIĐĒ DOOR

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

3 CON	PCS	AREA	ALPH	EMISS	SURF. TYPE	ACTIVE	COMMENTS
782	PODY	2.4705+04	0.	0 •	CYLINDER	OUTSID	+Y SIDE DOOR
743	9077	2.470E+04	0.	ō.	CYLINDER	INSTOE	+Y SIDE DOOR
- 784	BODY	2.470E+04	0.	0.	CYLINDER	OUTSID	+Y SIDE DOOR
785	ባበባል	2.4702+84	0.	0.	CYLINGER	INSIDe	+Y SIDE DOOR
785	PODY	2.4705+84	D .	0.	CYLINDER	OUTSID	+Y SIDE DODR
787	BOOY	2,4705+84	6.	0.	CYLINDEP	INSIDE	+Y SIDE DOOR
788	9007	2.470E+04	0.	0.	CYLINDER	OUTSID	+Y SIDE DOOR
791	BODY	2.417E+04	Ü.	0.	GYLINDER	INSTOS	*** *Y SIDE DOOR****
792	803Y	2.4136+04	9 *	0 •	CYLINDER	OUTSID	••• -Y SIDE DOOP••••
793	BODY	2.413E+04	٠,	0.	CYLTNDEP	INSIDE	Y SIDE DOOP
794	POTY	2.4135+04	£ .	9 •	CYLINDER	OUTSID	Y SIDE 000P
725	800Y	2.413E+C4	0	0.	CYLINDER .	INSIDE	··· -Y SIDE DOOR ····
796	807 የ	2.4132+04	G .	J.	CYLINDER	OUTSID	Y STOE 000R
797	POJY	2.413E+04	0.	0.	CYLINDER	INSIDE	••• -Y SID2 DOOR••••
798	$\mathbf{n}00\mathbf{A}$	2.4135-04	ι.	0.	CYLINDER	OUTSID	Y SIDE DOOP
301	PODY	2.9946+84	0.	0.	TRAPEZOID	TOP	+Y SIDE FRONT TRAPOZOTO
395	500 A	4.997F+04	.900	• 90 0	RECTANGLE	TOP	BOOY SIDE (MIDDLE-PORT) 305
396	BODY	5.155E+04	.900	•900	RECTANGLE	TOP	BODY SIDE (BACK-PORT) 306
311	BOOY	2.994E+04	0 +).	TRAPEZOIO	HOTTOR	-Y SIDE FRONT TRAPOZOID
315	₽oo¥	3.K78E+M4	.900	• 900	RECTANGLE	TOP	BODY SIDE (MIDDLE-STED) 315
316	ዓስባሃ	3.795F+04	.900	.900	RECTANGLE	TOP_	ADDY SIDE (BACK-STBD) 316
20.2	RODY	3.6955+04	•948	. 900	CYLINDER	OUTSID	BODY TOP (STBO-REAR) 202
212	₿₼₫₭	3.6855+04	.900	.900	CYLINDER	DUTSIO	BODY TOP (PORT-PLAR) 212
380	BOOY	2.805E+04	•900	• 900	TRAPEZOID	TOP	VERTICAL FIN (PORT) 28
385	BODY	2.054E+04	.930	900	TRAPSZOIO	TOP	VERTICAL FIN (PORT-AFT) 20
300	900Y	2.305E+04	•900	, 90 g	TRAPEZOIO	BOTTOM	VERTICAL FIN (STBD) 20
395	60 Q A	2.054E+04	.900	•900	TRAPEZOTO	BOTTON	VERTICAL FIN (STBO-AFT) 20
705	AUUA	2.827E+01	Ç.	0.	0150	TOP	HOST FORWARD EVAPORATOR
700	BUTY	1.5905+03	0.	0.	niso	BOTTOM	SUPER FNGINS (OMS LOCAT
771	800Y	1.5905+03	0.	0.	DISC	TOP	SUPER ENGINS (DMS LOCAT
702	BOOY	1.5902+03	0.	0.	OISC	BOTTOM	SUPER ENGINE COMS LOCAT
703	BUBA	1.590E+03	0 •	0.	DISC	TOP BOTTOM	*******SUPER ENGINS (DMS LOCAT
. 24	Y COP	2.9328+01	0.	0 •		TOP	BACK RCSLOOKING +/- Y.(
25	BUJA	2.837F+01	G.	j.	OTSC DISC	BOTTOH	FRONT RCSLOUKING +/-Y AT
18	BOTY	2.925E+01 2.926E+01	0.	0.	DISC	TOP	FRONT ROSLOOKING +/-Y AT
19	2007 1008	2.9328+01	0 • 0 •	0.	0130	BOTTOM	BACK RCS LOOKING +/- Z7/
26 27	BOD Y	2.83°F+01	0.	0.	DISC	TOP	BACK RCS LOOKING +/- Z7/
	ลเกฎ∀	2.827E+01	0.	9.	nISC	ROTTOM	MIDDLE EVAP. LOOKING +/- Y.
16 17	PODY	2.827E+01	0.7	0.	DISC	TOP	MIDDLE EVAP. LOOKING +/- Y.
399	9004	4.1525+73	.900	- 98 0	RECTANGLE	TOP	VERT. FIN LDG. EDGE 2
1050	SPLAG	2.822F+04	0.	0.	CYLINDER	OUTSID	PALLETI BOTTOM CYLINDER X= 64
1051	SPLAS	1.5962+03	0.	0.	RECTANGLE	TOP	-Y PALLETI OUTSIDE STRIP SL3
1052	SPLAB	1.596E+03	0.	0.	RECTANGLE	TOP	+Y PALLETS OUTSIDE STRIP SL3
1953	SPLAB	6.947E+02	0.	j.	RECTANGLE	TOP	-Y PALLETI TOP STRIP X=645.2 T
1054	SPLAR	6.940E+02	0.	0.	RECTANGLE	TOP	+Y PALLET1 TOP STRIP , X= 645.
-4.4							

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SPACELAB-3 INPUT DATA MATRIX

The following pages contain the input data computer printouts for the Spacelab-3/Orbiter configuration.

ዘኖልባ	5678 1 2345678 2 2345678 3 2345678 4 234 ER SUPFACE DATA	· •	72	AA AA
4	TCSN=50	•	73	AA AA
	TX=0., TY=0., TZ=0.	1	74	-
	POTY=0., POTY=0., ROT7=0.	_	75	AA
I	. TCSN = 1	·	76	AA
T	Tx=83C.,TY=0.,T7=0.		7 7	AA
	ROTZ=-180.,ROTY=0.,POTX=0.		<i>○</i> 7ð	AA .
_			79	AA
I			80	AA
	TY = -5.000000000E+02		81	AA
	TY = 4.		82	AA
	T7 = 0.	•	. 83	ДД -
	POT7 = -180.0000	-	34	AA
	POTY = -0.		85	AA
	potx = 0.		86	AA
1	Irsu = 3		87	AA
	TX = 8.90 n 0 0 C 0 0 0 0 E + 0 2		- ·	ÂÃ
	TY = 0.		88	44
	77 = 0.		89	AA
	POTZ = -90.0090		90	
	ROTY = -3.		91	AA
	POTX = 90.3000		92	A A
I	TOSN = 4	•	93	AA
1	TY = 4.300000000E+02		94	AA
	TY = 6.297000000E+01	•	95	44 L
		•	96	AA ∺
			97	44
	entz = 79.7000		56	AA
	ROTY = 41.0300		99	AA
	POTX = 0.		100	ДД
Ī	TOSN = 5		101	AA
	TY = 4.3000000000002+02	•	102	AA
	TY = -6.29300000000E+01		103	AA
	77 = 2.4000000970E+01	,	104	AA
	POTZ = 100.30°0		105	AA
	PATY = ~41.Ju00		— * -	AA
	POTX = 0.		106	44
I	IC c vi= 6		107	44
-	TX=-195.		108	
	T = 0.		109	AA
	TZ=14.		110	AA
	POTX=0., POTY=90., POT7=0.		111	AA
Ť	TCSN=7		- 112	AA
1	TX=-116.,TY=0.,TZ=14.		113	AA
	ROTX=0.,ROTY=90.,ROTZ=0.		11.4	AA
_			115	AA
I	ICSN=6		116	44
	TA = -116., TY=0., TZ=14.		117	AA
	POTX=0.,ROTY=90.,POTZ=0.		. 118	AA
Ţ	IC <w=d< td=""><td></td><td>119</td><td>AA</td></w=d<>		119	AA
	TX=156.,TY=0.,T7=14.		120	AA
	ROTX=n., POTY=-90., ROTZ=0.		121	· AA
I	TOSM=13		122	AA
	TX=120.,TY=0.,TZ=14.		. 166	

	ROTX=0ROTY=90ROTZ=0.	123	AA
1	TCSN = 11	124	AA
*	TX=-470.,TY=-78.14,T7=65.56	125	AA
	ROTX=u.,ROTY=90.,ROTZ=0.	126	AA
Ī	ICSN=12	127	AA
•	TX=-470.,TY=+78.14,TZ=65.56	128	AA
	POTX=0., ROTY=90.3,ROTZ=0.	129	AA .
I	TCSN=13	130	AA
•	TX ==70CTY=00.,TZ=50.	131	AA
	ROTX=J. C.ROTY=+aJ., ROTZ=G.	132	AA
I	ICSN=14	133	AA
•	TX=-717TY=3.0,TZ=-50.	- 134	AA
	ROTX=0.0,001Y=-80.,POY7=0.	135	44
I	IOSN=15	136	AA
•	1x=-711.,TY=6.j,T7=0.0	137	AA
	POTX=3.0. POTY=-97.35, RDTZ=0.0	138	AA
I	TCSN=16	139	AA
•	Tx=-765TY=88.,TZ=70.5	140	AA
	POTX=0.,POTY=-74.183,POTZ=12.241	141	AA
Ţ	ICSN=17	142	AA
•	TX=-755TY=-88TZ=70.5	143	· AA
	POTX = 0 ROTY = -74.183, POTZ=12.241	144	AA
I	1021=30	145	AA
-	TX=0.,TY=132.,TZ=0.	146	AA 152
	ROTX=-5ROTY=0.,ROTZ=0.	. 147	AA N
I	TC SN= 21	148	AA -
-	TX=0.,TY=-102.,T7=0.	149	AA
	ROTX=5.,ROTY=0.,POTZ=0.	150	AA
Bris	BODY	151	AA
S	SURF=145,TYPE=TRAP,ACTIVE=TOP,SHADE=80TH,BSHADE=B0TH	152	AA
-	P1=-5301J20.	153	ДД
	P2=-698.,102.,-125.	154	AA
	P3=-728.,102.,-125.	155	AA
	P4=-711.,102.,0.	156	AA
	PPOP=0.,J.	157 .	44
	COM=+ +Y REAR SIDE TAPER+	158	44
S	SUPF=146, TYPE=TRAP, ACTIVE=BOTTOM, SHADE=BOTH, BSHADE=BOTH	159	. ДД
	P1=-698.,-102.,0.	160	4 A A A
	P2=-69d.,-102.,-125.	161	
	P3=-728·,-102·,-125·	162	AA
	P4=-711.,-102.,0.	163	- ДД
	PROP=0	164	AA
	COM= * - Y. REAR SIDE TAPER*	165	AA
S.	SUPFN=737,TYPE=DISC,ACTIVE=BOTH,SHADE=BOTH,BSHADE=BOTH	166	· AA
	P1=21f.,184.,-47.	167	AA
	P2=218.,104.,-50.	168	AA AA
	F3=21F104+47.	169	AA AA
	P4=215.,104.,-47.	170 171	AA
	PonP=[.,].	172	AA
	TOMET JULY & EVAP 3 IN. RAD. UP FRONT CLOSE UNDER HING*	173	AA
9	SURF=147, TYPE=PARAB, ACTIVE=OUT, SHADE=BOTH, BSHADE=BOTH	. 113	~~

	OTMCNSTANS=4.4,0.0,100.,0.,360.	174	AA
	TCCN=13	175	AA
	PR OP= J • • 0 •	176	AA
	COM=* TOP ENGIN *	177	AA
S	SUPF=146, TYPE=PARA9, ACTIVE= OUT, SHADE=BOTH, 8SHADE=80TH	178	AA
_	DIMENSIONS=4.4.0.0,100.,0.,360.	179	AA
	IrsN=14, IY= +5u •	180	AA
	PROP=09.	161	AA
	COM = # + Y ENGIN #	182	ДД
S	SUPF=149, TYPE=PARAB, ACTIVE=OUT, SHADE=BOTH, BSHADE=BOTH	163	AA
•	OIMENSTONS=4.4,0.0,100.,u.,360.	184	AA
	TCSN = 14. TY =-50.	· 185	AA
	pagp=0.,3.	186	AA
	FOM = * -Y ENGIN*	187	AA
5	SUPF=20,TYPE=DISC,ACTIVE=OUT,SHADE=BOTH,BSHADE=BOTH	198	AA
	714Erstons=0.4,0.4,45.,125.,335.	189	AA
	PP (P= 00.	190	AA
	ICSN=11	191	AA
	COM = *Y OWS SEALER	192	AA
S	SUPF=21,TYPE=DISC,ACTIVE=DUT,SHADE=BOTH,BSHADE=BOTH	193	AA
•	nimenstans=0.0,0.0,45.,25.,235.	194	AA
	PO(P=0).	195	AA
	ICSN=12	196	44
	COM= *+Y OHS SEALER*	197	AA 15
5	SUPF=222.TYPE=RFCT.ACTIVE=ROTTOM.SHADE=BOTH.BSHADE=BOTH	198	AA 👸
.,	01=-723102125.	199	AA
	P2=-723102125.	200	AA
	P3=-711.,102.,0.J	2 ù 1	AA
	panpaga,g.	202	· AA
	COM=* BACK RECT 7.350EG*	203	AA
S	SURF=23,TYPE=DISC,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	204	AA
_	DIMENSIONS=0.0,0.0,102.,90.,270.	205	AA
	PPOP=0.,0.	206	AA
	I^SN=15	207	AA
	COM=* REAR END HALF DISK*	208	AA
S	SUPF=407,TYPE=DISC,ACTIVE=TOP,SHADE=BOTH,BSHADE= BOTH	209	AA
	P1=-592.0,113.,-77.	. 210	AA
	P2=-592.0,113.,-80.	211	AA -
	P3=~595.0,113.,-77.	212	AA
	P4=-595.0,113.,-77.	213	A A
	₽₽0₽±3.,C.	214	AA
	COM=* BACK SIDE EVAPORAT, UPDATED JULY 18, 6 IN DIA.*	215	AA
S	SURF=15,TYPE=DISC,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	216	AA
	Pi=-719.,126.,-95.	217	· AA
	P2=-719.,126.,-98.	218	AA
	۵۲=-722.,126.,-95.	219	AA
	P4=-722.;126.;-95.	220	AA
	PROP=3++0+	221	AA
	COME* REAR END EVAPORATOR*	222	AA
S	SURF=10,TYPE=POLY,ACTIVE=BOTTOM,SHADE=BOTH,BSHADE=BOTH	223	AA
	P1=230.,0.,-1ú2.	224	AA

10

INPUT CARD COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL AA 225 02=-192.,-99.,-60. 226 AA P3=-192.,0.,-59. ΔΔ 227 TCSN=21 228 AΑ P20P=3..0. AA 229 COMET. ... LEFT FRONT WING A ...* ΔΔ 230 SURF=11. TYPE=POLY. ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH S AA 231 P1=-132..-39..-60. AA 232 P2=-493. -89. -85. ΔΔ 233 P7=-4d3. .-366. .-85. ΔΔ 234 TOSM=21 AA 235. PROP=0..0. ΔA 236 COM=*....LEFT MIDDLE WING BACK.B ... * AΑ 237 SURF = 141, TYPE=RECT. ACTIVE=TOP, BSHADE=BOTH. SHADE=BOTH S AΑ 238 P1=-132..0..-60. AA 239 P2=-433..J..-35. AA 246 03=-633..-89..-85. AA 241 TOSN= 21 ДΑ 242 PROP=3..0. AA 243 COME# 95 INNER WING ΔΑ 244 SUPF=12.TYPE=PECT.ACTIVE=TOP, SHADE=80TH, BSHADE=BOTH 2 ΔΔ 245 P1=-644..-59..-90. AA 246 P2=-444. .-365. .-99. AA 247 P3=-483.,-366.,-85. AA 24A TCSN=21 AA F 249 PPOP=0..0. ΔΔ 250 COMEN LEFT BACK RECT. WING C * AA 251 SUPF=142, TYPE=RECT.ACTIVE=TOP.SHADE=BOTH.BSHADE=BOTH 5 AA 252 P1=-644..0..-90. 253 AA P2=-644..-89..-90. AA 254 P3=-483.,-89.,-85. AA 255 ICSN=21 ΔΔ 256 PP0P=0.... 257 AA COM=# INNER WING C# AA 258 SUPF = 13, TYPE=POL +, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH S AA 259 P1=+693....-132. ΔΔ 260 P2=-644..-366..-90. 261 AA P3=-644.,0.,-90. ΔΔ 262 PROP=0..0. AA 263 ICSN=21 AA 264 COMET LEFT WING TAIL EDGE ..D . * AA 265 SURF=1,TYPE=POLY,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH S AA 266 T1=230..0..=70. AA 257 P2=-192..39..-50. ΑΑ 268 P3=+192..J..+63. AA 269 PPOP= 9.,0. AA 270 AA 271 COM=+...FRONT WING TRIANGLE RT.A.582.1024* 272 AΑ SURF=2. TYPE=POLY, ACTIVE=BOTTOH, SHADE=BOTH, BSHADE=BOTH 5 ΔΔ 273 poge=0.... AA. 274 P1=-192.,89.,-60. AA 275

P2=-493.,89.,-35.

1434501	4 1 5343910 5 5343010 3 2043010 4 6043010 5 2011311			•
	· · · · · · · · · · · · · · · · · · ·		276	-AA
	93=-483.,366.,-85. COM=*MIDDLE WING TRAP, RT B1024,1292*		277	AA
			278	AA
_	TCSN=20 SURF=143,TYPE=RECT,ACTIVE=ROTTOM,SHADE=BOTH,BSHADE=BOTH	•	279	AA
5	01=-1920=60.		289	AA
	P2=-4831085.		281	AA
			282	AA
	P3=-483.,89.,-85.		283	AA
	PPOP=1.,0.		284	AA
	ICSN=20 COM=*B +Y RECTANGLE MING*		285	AA
_	SIRE=3,TYPE=RECT,ACTIVE=BOTTOM,SHADE=BOTH,BSHADE=BOTH		286	AA
S		,	287	AA ·
	91=-644.,89.,-90.		288	AA
	P2=-644.,365.,-90.		289	AA
	07=-483.,366.,-85.		290	AA
	PROPEU., ú.		291	AA
	TCSN=20	*	292	AA
_	COM=+ BACK WING REGT. RTC .1292,1453+		293	AA
S	SURF=144, TYPE=RECT, ACTIVE=BOTTOM, SHADE=BOTH, BSHADE=BOTH		294	AA
	P1=-6440,-90.		295	AA
	02=-644.,39.,-90.		296	· AA
•	03=-483.,59.,-85.		297	AA
	PROP=00.		298	AA
	YCSM=2J		299	AA
_	COM=* INNER WING C RECT*		300	AA G
S	SURF=4, TYPE=POLY, ACTIVE=BOTTOM, SHADE=BOTH, BSHADE=BOTH		301	AA
	P1=-630.,0.,-1J2.		302	44
	P2=-644.,766.,-90.		303	AA
	P3=-644.;1.;-93.		304	AA
	P?∩P=∩0.		305	. AA
	ICSN=23		306	AA
	COM=*WING TAIL FLAP RY 1453,1507* SHPEN= 153.SHADF=BOTH.BSHADE=BOTH.ALPHA==0. ,EMISS==0.		307	AA
S		*	368	AA
	TRANS=-0. ,TRANI=-G. ,COM=+9AY AREA CYLINDER		309	AA
	TYPE=CYLINDER ,ACTIVE=INSIDE ,ALPH= 1.02000E+02		310	AA
	8MTN= 0. ,9MAX= 7.00000E+02,GMIN= 0. GMAY= 1.80001E+02.NNX= 2.NNY= 4,ICSN= -0	•	311	AA
	- 0 19 4 - 2 1 0 4 1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1		312	AA
	POSITTON=-4.70000E+02, 0. , 0. POT7 = -0. ROTY = 90.0000. ROTX = 0.		313	- AA
	Kill A mark and the state of th		314	AA
\$			315	AA
	TRANS=-0. ,TRANI=-D. ,COM=* END BAY AREA DISK	•	316	AA
	TYPE=DISC ,ACTIVE=TOP ,ALPH= 0.		317	AA
	BMIN= 0. ,BMAX= 1.020J0E+02,GMIN= 0.		318	AA
	GMAX= 3.60000E+J2,NNX= 1,NNY= 1,TCSN= -0		319	AA
	POSITTON=-4,70000F+02, 0 0	•	320	ÄÄ
	KOIK - ST TOTAL		321	AA
S	SURFN= 135, SHADE = BOTH, BSHADE = BOTH, ALPHA == 0. , EMISS== 0.	25	. 322	ĀĀ
	TRANS=-0. ,TRANI=-0. ,COM=+ FRONT BAY AREA BISK	• .	323	AA
	TYPE=NISC ,ANTIVE=TOP ,ALPH= 0.		324	ÄÄ
	BMTN= 0. ,9MAY= 1.020006+62,GMIN= 0.		325	AA
	CMAX= 3.50000E+U2,NMX= 1.NNY= 1,ICSN= -0		326	ĀĀ
	POSITION= 2.30000E+02, 0		7¢0	47

1204.	2 204000 2 2040000 3 2040000		• •
	ROTZ = -0. , ROTY = -90.0000, ROTX = 0.	327	AA
_	STIRFN= 122, SHADE=80TH, BSHADE=80TH, ALPHA=+0. ,EMISS=+0.	328	AA
S		329	AA
	TRANS=-0. ,TRANI=-0. ,COM=* VERY NOSE CONE	330	AA
	TYPE=PARABOLOIO,ACTTVE=OUTSIDE,ALPH= 6.13J00E+00	331	AA
	RMTN= 0. ,BMAX= 2.00000E+02,GMIN= 0.	332	AA
	GMAX= 3.60309E+02.NNX= 4.NNY= 1.ICSN= 1		44
	POSITION= 2.00000E+02.03.00000E+01	333	
	POTZ = -180.3003, ROTY = -90.0000, ROTX = 0.	334	AA
S	SUPEN= 320,SHADE=BOTH,3SHADE=BOTH,ALPHA=+0. ,EMISS=+0.	335	AA
	TPANS=+J. TRANI=+U. , COM=* NOSE CYLINDER *	336	AA
	TYPE=CYLINDER ,ACTIVE=OUTSIDE,ALPH= 7.33303E+01	337	44
	RMTN= 0. , BMAX= 1.70000E+02,GMTN= 0.	338	AA
	CMAX= 3.60000F+12,NNY= 4.NNY= 4.1CSM= 1	. 339	44
	POSTTYON= 4.00J105+02, 0. ,-3.00G005+01	340	AA
	POTZ = -180.0000, ROTY = -90.0000, ROTX = 0.	341	AA
_	OUR THE COURT NOT DEVANGED AND ALCOHOLING SMISS-B.	342	AA
S	SURFN= 340, SHADE=BOTH, BSHADE=BOTH, ALPHA==0. , EMISS==0.	343	AA
	TPANS=-J. ,TRANI=-O. ,CON=* HOOD PARTIAL BACK *	344	ÄÄ
	TYPE=FARABOLOID, ACTIVE=OUTSIDE, ALPH= 7.03000c+00	345	ÄÄ
	BMIN= 2.60000E+J2,8MAX= 3.70000E+D2,GMIN= 0.		
	GMAY= 3.60000F+02,NNY= 4,NNY= 4,ICSN= 1	346	AA
	POSITION= 2.00000E+02, 0. , 0.	347	AA
	POTZ = -189.0000, ROTY = -90.0000, ROTX = 0.	348	` AA
S	SURFN= 360,SHADE=80TH,8SHADE=80TH,ALPH4=+0. ,EMTSS=+0.	349	AA
-	TRANS=-JTRANI=-G. ,COM=# WINDOW #	350	AA ,
	TYPE=PARABOLOIO.ACTIVE=PUTSID2.ALPH= 2.38000E+01	351	AA 5
	RMIN= 1.68000°+01;8MAX= 7.68000°±+01;GMIN= 0.	352	AA C'
	GMAX= 3,60000E+J2,NNX= 4,NNY= 4,ICSN= 1	353	AA
	POSITION= 3.83200 E+02, 0. , 0.	354	4.4
	PDTZ = -180.0000, RDTY = -90.0000, ROTX = 0.	355	AA
_	SURFN= 401, SHADE=BOTH, BSHADE=BOTH, ALPHA= .900.EMISS= .900	356	. AA
S	TRANS=-7. ,TPANI=-0. ,COM=*800Y BOTTOM (FPT) 4 1 *	357	AA
		35B	AA
	TYPE=RECTANGLE ,ACTIVE=BOTTOM ,ALPH= 0.	359	ĀĀ
	BMIN=-1.02007E+u2,BMAX= 1.02000E+02,GMIN= 0.	360	AA
	GMAX= 2.26300E+02,NNX= 1,NNY= 1,TCSN= 1		
	POSITION= 5.700005+32, 0. ,+1.02000E+02	361	AA
	POTZ = -0. , ROTY = 5.3870, ROTX = 0.	362	AA
S	SURFN= 402, SHADE=BOTH, BSHADE=BOTH, ALPHA= .900, EMISS= .900	363	, да
	TRANS=-J. ,TRANI=-G. ,COM=*BODY BOTTOM (REAR) 402 *	364	AA
	TYPE=RcCTANGLE ,ACTIVE=BOTTOM ,ALPH=-1.25000E+02	365	AA
	9MTN=-1.02000E+02, 9MAX= 1.02000E+02, GMIN= 2.25000E+02	366	AA
	$GM4X = 9.30000E + J2,NN \times 1,NNY = 1,ICSN = 1$	367	AA
	POSITTON= 5.70000E+02, 0 0.	368	AA
	POTZ = -0. , $ROTY = -0.$, $ROTX = 0.$	369	AA
s	SURFN= 182, SHADE=BOTH, 9SHADE=BOTH, ALPHA=-0. ,EMISS=+9.	370	AA
3	TPANS==0. ,TRANI==P. ,COM=* OMSPODC1	371	AA
	TYPE=CYLINDER ,ACTIVE=OUTSIDE,ALPH= 4.50000E+01	372	AA
		373	AA
		374	ÄÄ
	0144 G 4 3 4 6 6 7 11 1	375	AA
	POSITION=-4.730005+02,-7.81403E+01, 6.55600E+01	376	AA
_	POTZ = -0. , ROTY = -90.0000, ROTX = 0.		44
S	SUPEN= 172, SHADE=BOTH, BSHADE=BOTH, ALPHA=-ù. ,EMISS=-0.	377	AĄ

	TRANS=+0. ,TRANI=+0. ,COM=+ OMSPODC2 +	378	AA
	TYPE=CYLINDER ,ACTIVE=OUTSIDE,ALPH= 4.50003E+01	379	AA
	GMAX= 1.46300E+02,NNX=	380	AA
	8MTN= 0. ,3MAX= 2.35000E+02,GMIN=-6.60000E+01	361	AA
	POSTTTON=+4.70000F+0?, 7.8140JE+01, 6.5560UE+01	382	. AA
	POTZ = -3. , ROTY = -90.0000, ROTX = 0.	383	AA
S	SURFN= 781,TYPE=GYL,ACTIVE=80TH,SHADE=80TH,BSHADE=80TH	384	AA
	F1=23C.,201.34,37.98	385	AA
	Ŕ2=230•,103•,19•	386	AΔ
	P3=230.,231.34,=64.0?	367	AA
	P4=-470.,201.34,-64.02	388	AA
	₽₽Ŋ₽=^.,û.	. 399	AA
•	NNX=2,NNY=2	390	AA
	COM=*Y SIDE DOOR*	391	AA
S	SUPFN= 791,TYPE=CYL,ACTIVE=BOTH,SHADE=BOTH,BSHADE=BOTH	392	AA
	P1=230.,-201.34,37.98	393	AA
	P2=23C.,-201.34,-64.02	394	AA
	P3=230.,-103.,19.	395	AA
	P4=-470.,-103.,19.	396	AA
	PPOP=0.0,0.	397	AA
	NNX=2,NNY=2	398	' AA
	00H=*Y SIDE 000P*	399	AA
5	SURFN= 391,TYPE=TRAP,BSHADE=BOTH,SHAOE=BOTH,ACTIVE=TOP	400	AA
	P1=230.,102.,-102.	401	AA 15
	P2=4.,102.,-125.	402	AA ¬
	P3=4.,102.,19.	403	AA
	P4=230.,102.,19.	404	AA
	rom=+ +y side front trapozoid+ .	405	AA
	PROP=0.,0.	406	AA
\$	SURFN= 305, SHADE=BOTH, BSHADE=BOTH, ALPHA= .900, EMISS= .900	407	AA
	TRANS=-0. ,TRANI=-G. ,COM=*BODY SIDE (MIDDLE-PORT) 305 *	408	AA
	TYPE=RECTANGLE ,ACTIVE=TOP ,ALPH= 1.02000E+02	409	AA
	BMTN=-1.25000E+02,BMAX= 19. ,GMIN= 2.25000E+02	410	AA
	GMAX= 5.72000E+02,NNX= 1,NNY= 1,ICSN= 1	411	4 4
	POSITION= 5.70000E+02, 8. , 0.	412	AA
	ROTZ = -0., $POTY = -0.$, $ROTX = 90.0000$	413	
5	SUPFN= 306, SHADE=80TH, BSHADE=BOTH, ALPHA= .900.EMISS= .900	414	AA
	TPANS=-0. ,TRANI=-0. ,COM=+BODY SIDE (BACK-PORT) 306 *	415	AA
	TYPE=RECTANGLE, ACTIVE=TOP , ALPH= 1.02000E+02	416	AA
	PMYN=-1.25000E+32,8MAX= 19. ,GMIN= 5.72000E+02	417	AA
	GMAX= 9.3000E+02,NNX= 1,NNY= 1,ICSN= 1	418	AA
	POSITION= 5.70000E+02, 0	419	, AA
	POT7 = -0. , ROTY = -0. , ROTX = 90.0000	420	AA
S	SUREN= 311, TYPE=TRAP, BSHADE=BOTH, SHADE=ROTH, ACTIVE=BOTTOM	421	AA
	01=230.,102.,-132.	422	AA
	P2=4.,102.,+125.	423	AA
	P3=4.,102.,19.	424	AA
	P4=23C, ,102, ,19,	425	AA
	COM=# -Y SIDF FRONT TRAPOZOIO#	426	AA
e	PPOP=0.,ú. Surfn= 315,Shade=Roth,BShade=Both,Alpha= .900,Emiss= .900	427	AA
S	SOUTH SID SOUNDE AUGUS SOUNDE CONTRACTOR - 0 AND FULL 199 - 9AND	428	, AA

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AA
       TRANS=-U. TRANI=-B. .COM=*BODY SIDE (MIDDLE-STBD)
                                                                                                    ΔΔ
                                                                                 430
                                    _ALPH= 1.02000E+02
       TYPE=RECTANGLE .ACTIVE=TOP
                                                                                                    AA
                                                                                 431
                        .9MAX= 1.25030E+02,GMTN= 2.25000E+02
                                                                                                    ΔΔ
                                                                                432
       GMAX= 5.72000E+02,NNY= 1.NNY= 1.TCSN= 1
                                                                                433
       POSITION= 5.70000E+02. 0.
                                                                                                    ΔΔ
                                                                                434
                                  = -J. , ROTX
                                                       = -90.0000
             = -0. . ROTY
                                                                                435
                                                                                                    ΔA
       SHREN= 316, SHADE=BOTH, BSHADE=BOTH, ALPHA= .900.EMISS= .900
                                                                                 436
                                                                                                    Δ Δ
                  .TGANI=-0. .COM=*BODY SIDE (BACK-STBD)
                                                                                437
       TYPE=RECTANGLE ,ACTIVE=TOP ,ALPH= 1.02000E+02
                                                                                 43à
                                                                                                    ΔΔ
                       ,8MAX= 1.250002+02,GMTN= 5.72000E+02
                                                                                                    ΔΔ
                                                                                 439
       CMAX= 9.30000E+37.NNX= 1.NNY= 1.ICSN=
                                                                                 440
                                                                                                    AA
       POSITTON= 5.700005+02, 0.
                                       . 0.
                                                                                                    ΔΔ
                                                                                 441
                                   = -0.
                                             , ROTX
             = -G. , ROTY
       SURFN= 202.SHADE=ROTH, BSHADE=BOTH, ALPHA= .900, EMISS= .900
                                                                                 442
S
                                                                                                    ΔΔ
       TRANS=-0. ,TRANI=-0. .COM=#BODY TOP (STRD-REAR) 202
                                                                                 443
                                                                                 444
                                                                                                    AA
       TYPE=CYLINDER ,ACTIVE=OUTSIDE,ALPH= 1.02030E+02
                                                                                                    ΔΔ
                                                                                 445
       PMTN= 7.00000E+02.8MAX= 9.30000E+02.GMIN= 2.70000E+02
                                                                                                    ΔΔ
       GM6X= 3.60000E+02.NNX= 1.NNY= 1.ICSN= 1
                                                                                 446
                                                                                                    AA
                                                                                 447
       POSITION= 5.70000E+02. 0.
                                       . 0.
                                                                                 448
                                                                                                    AA
             = -D. . ROTY = 90.0000, ROTX
                                                                                                    ΔΔ
       SURFN= 212, SHADE=BOTH, BSHADE=BOTH, ALPHA= .900.EMISS= .900
                                                                                 449
                                                                                                    ΔΔ
                                                                                 43B
       TRANS==0. TRANI==9. (COM=#BODY TOP (PORT-REAR) 212
                                                                                                    AA
                                                                                 451
       TYPE=CYLINDER ,ACTIVE=OUTSIDE,ALPH= 1.02030E+02
                                                                                 452
       BMIN= 7.000005+92, AMAX= 9.30000E+02, GMIN= 1.80000E+02
                                                                                 453
                                                                                                    AA co
       GM4X= 2.70000F+02,NNX= 1,NNY= 1,ICSN= . 1
                                                                                 454
                                                                                                    ΔΑ
       POSITION= 5.70030E+02. 0.
                                        . 0.
                                                                                                    ΔΔ
                                                                                 455
                                = 93.000J, ROTX
             = -0. ROTY
       SURFN= 380 ,SHADE=BOTH, BSHADE=BOTH, ALPHA= .900, EMISS= .900
                                                                                 456
                                                                                 457
       TRANS=-0. ,TRANT=-C. .COM=+VFRTICAL FIN (PORT)
                                                           20
                                                                                 458
                                                                                                    AΑ
       TYPE=TRAPEZOTO .ACTIVE=TOP
                                  ,ALPH= 0.
                                                                                                    AA
                                                                                 459
       BMIN= 1.48400E+02.8MAX= 3.93400E+02.GMIN= 3.00000E+01
                                                                                 460
                                                                                                    AA
       CMAX= 4.50300E+01.NNX= 1.NNY= 1.ICSN=
                                                  1
                                                                                 461
       POSTTTON= 1.65840 E+03, 0.
                                       , 4.95400£+02
                                 = -180.00J0. ROTX
                                                                                 462
             = -0. . ROTY
                                                                                 463
       SURFN= 365.SHADE=BOTH,BSHADE=BOTH,ALPHA= .900.EMISS= .900
                                                                                                    ΔΔ
       TRANS=-J. ,TRANT=-O. ,COM= *VERTICAL FIN (PORT+AFT) 20
                                                                                 464
                                                                                                    AA
                                                                                 465
       TYPE=TRAPEZOID ,ACTIVE=TOP
                                  .ALP4= 0.
       BMIN= 1.48400c+02.8MAX= 3.93400E+02,GMIN= 1.50000E+01
                                                                                 466
                                                                                                    AA
                                                                                 467
       CMAX= 3.0000UE+01,NNX= 1,NNY=
                                         1.ICSN= 1
                                                                                                    AA
                                                                                 468
       POSITYON= 1.658405+03, 0.
                                       . 4.95400E+02
                                                                                                    AA
                                                                                 469
             = -0. , ROTY = -180.0000. ROTX
                                                          90.0000
       SURFN= 390.SHADE=BOTH,BSHADE=POTH,ALPHA= .900.EMISS= .900
                                                                                 470
                                                                                                    AA
                                                                                 471
                                                                                                    AA
       TRANS==0. .TRANT==0. ,COM=#VFRTICAL FIN (STOD)
                                                                                 472
       TYPE=TRAPEZOID ,ACTIVE=BOTTOM ,ALPH= 0.
                                                                                                    AA
                                                                                 473
       BMIN= 1.48400E+J2,BMAX= 3.93400E+02,GMIN= 3.00000E+01
                                                                                 474
                                                                                                    AA
       GMAX= 4.50300E+01.NNX= 1.NNY= 1.ICSN= 1
                                                                                 475
       POSITION= 1.65840E+03, 1.000000E-01, 4.95400E+02
                                                                                                    AA
                                                                                 476
       POTZ . = -9. , POTY = -183.0300, ROTX
                                                                                 477
                                                                                                    AA
       SURFM= 395, SHADE=ROTH, BSHADE=BOTH, ALPHA= .930, EMISS= .900
                                                                                 478
                                                                                                    AA
       TRANS=+0. TRANI=-C. .COM=*VERTICAL FIN (STBD-AFT) 20
                                                                                                    ΔΔ
                                                                               . 479
       TYPE=TRAPFZOID ,ACTIVE=BOTTOM ,ALPH= 0.
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AA
                                                                                          480
        PMIN= 1.48400E+02.3MAX= 3.93400E+02.GMIN= 1.50000F+01
                                                                                                               ΔA
                                                                                          481
                                             1.ICSN=
        GMAX= 3.00000E+01.NNX=
                                  1 . NNY=
                                                                                                               ΔA
                                                                                          482
        POSITION= 1.65940E+03. 1.07000E-01, 4.95400E+02
                                                                                                               ΔΔ
                                                                                          483
                           . POTY
                                      = -180.000, ROTX
        RNT7 = -0.
                                                                                                               ΔΔ
                                                                                          484
         SURF=705, TYPE=DISC, ACTIVE=TOP, SHADE=80TH, BSHADE=80TH
S
                                                                                                               AA
                                                                                          485
         P1=327..85..+72.
                                                                                                               AΑ
                                                                                          486
         P2=327..85.,-75.
                                                                                                               ΔΔ
                                                                                          487
         P3=324..85..-72.
                                                                                                               AA
                                                                                          488
         P4=324..85..-72.
                                                                                                               AA
                                                                                          469
         PROP=3..0.
                                                                                                               ΔA
                                                                                          490
         COM= .. HOST FORWARD EVAPORATOR .... LOOKING +Y,6 IN DIA.*
                                                                                                               ΔΑ
                                                                                          491
        SHREN=700, TYPE=DISC, ACTIVE=BOTH, BSHADE=BOTH, SHADE=BOTH
S
                                                                                          492
                                                                                                               AA
        DIMENSTONS=70.,0.,22.5.0.,360.
                                                                                                               AΑ
                                                                                          493
        ICSN=16.PPOP=0..J.
                                                                                                               ΔΑ
                                                                                          494
        COM=*....SUPER ENGINS (OMS LOCATION) .. +Y .. *
                                                                                                               AA
                                                                                          495
        SURFN=732, TYPE=DISC. ACTIVE=POTH: BSHADE=BOTH, SHADE=BOTH
S
                                                                                                               AA
                                                                                          496
        DIMENSIONS=70..0.,22.5.0.,360.
                                                                                                               AA
                                                                                          497
        ICSN=17.P90P=0..0.
                                                                                                               AA
                                                                                          438
        COM=*.....SUPER FNGINS (OMS LOCATION) .. +Y...
                                                                                                               AA
                                                                                          499
        SURFN=24, TYPE=DISC, ACTIVE=80TH, SHADE=NO, BSHADE=BOTH
S
                                                                                                               ДД
                                                                                          500
        P1=-765..134..59.
                                                                                                               ΔΔ
                                                                                          501
        P2=-765.,134.,62.
                                                                                                               AA
                                                                                          502
        P3=-767.82,132.97,59.
                                                                                                               AA H
                                                                                          503
        P4=-767.82.132.97.59.
                                                                                                               44 5
                                                                                          514
         PROP=0..0.
                                                                                                               ΔΔ
                                                                                          505
        COM= + ... BACK ROS ... LOOKING +/- Y. (10 DEG CANT) .*
                                                                                                               AA
                                                                                          516
         SUPFN=18. TYPE=DISC, ACTIVE=BOTH, SHADE=BOTH, BSHADE=BOTH
S
                                                                                                               AA
                                                                                          507
        P1=467.5,50.,-48.9
                                                                                          508
                                                                                                               ΔΔ
        P2=476.5.53..-48.9
                                                                                                               AA
                                                                                          509
        P3=467.5.52.457.547.18
                                                                                          510
                                                                                                               ДΔ
        P4=457.5,52.457,-47.18
                                                                                                               AA
                                                                                          511
        Panpat. ....
                                                                                                               ΔΑ
                                                                                          512
        COM= * ... FPONT POS. . LOOKING +/-Y AT 35 DEG. 7/23/74...*
                                                                                                               AA
                                                                                          513
         SUPFN=26, TYPE=DISC, ACTIVE=BOTH, SHADE=NO, BSHADE=BOTH
S
                                                                                                               AΑ
                                                                                          514
         P1=-765..118..57.
                                                                                                               AΑ
                                                                                          515
         P?=-765..115..57.
                                                                                                               AΑ
                                                                                          516
         P7=-767.82.118.,58.03
                                                                                                               ДΑ
                                                                                          517
         P4=+767.62.118..58.03
                                                                                          518
                                                                                                               AA
         PPOP=0..0.
                                                                                                               AA
                                                                                          519
         COM= * ... BACK RCS LOOKING +/- Z... 7/23/74.(10 DEGG CANT) .. *
                                                                                                                AA
                                                                                          520
         SHOFN=16, TYPE=DISC, ACTIVE=BOTH, SHADE=BOTH, BSHADE=BOTH
S
                                                                                                                AA
                                                                                          521
         P1=-247...195...-21.
                                                                                                                AA
                                                                                          522
        P2=-247.,105.,=24.
                                                                                                                AA
                                                                                          523
         F3=-250..105..-21.
                                                                                                                AA
                                                                                          524
         P4=+250.,105.,-21.
                                                                                                                AA
                                                                                          525
         PROP=C..O.
                                                                                          526
                                                                                                                AA
         COM=*...MIGDLE EVAP. LOOKING */- Y.....*
                                                                                                                AA
         SURFN= 399, SHADE=ROTH, BSHADE=BOTH, ALPHA= .900, EMTSS= .900
                                                                                          527
S
                                                                                                                AA
                                                                                          528
         TRANS=-1. TRANT=-0. COM=+VERT. FIN LOG. EDGE
                                                                                                                AA
                                                                                          529
         TYPE=RECTANGLE .ACTIVE=TOP
                                        .ALPH= D.
                                                                                          530
                                                                                                                AA
         PMIN=-6.00003E+30, RMAX= 6.00000E+03, GMIN=-5.56000E+02
```

	GMAX=-2.19000E+32,NNX= 1,NNY= 1,ICSN= 1	531	AA
	POSTTTON= 1.65840E+03. 0. , 4.95400E+02	532	AA
	POTZ = -0, , POTY = -45.000ú, ROTX = 0.	533	AA
0.00	SPLAB	534	AA
808	SURF=1050, TYPE=CYL, ACTIVE=OUTSIDE, SHADE=BOTH, BSHADE=BOTH	535	AA
S	TC SN = 50	536	AA
		537	AA
	P1=645, 2, 0., 400.	538	AA
	P2=645.2.78.8.400.	539	AA
	P3=645.2, +7 d. 8, 40J.	540	ÄÄ
	P4=759.2,-78.8,4J0.	541	ÄÄ
	POOP=1.,0.	. 542	. AA
	rom = * PALLET1 BOTTOM CYLINDER X= 645.2 TO 759.2 St3 *	543	ĀĀ
9	SURF=1051, TYPE=RECT, ACTIVE=OUTSIDE, SHADE=BOTH, 9SHADE=BOTH	544	ÄÄ
	TCSN=50	5+5	ÄÄ
	P1=645.2,-78.8,400.	546	AA
	P?=759, 2, -78, 8, 493.	* · -	AA
	P3=759.2,-7d.d,414.	547 513	AA
	PROP= 4.,0.	548	AA
	COM= + -Y PALLET1 OUTSIDE STRIP SL3 +	549	AA
S	SURF=1052,TYPE=RECT,ACTIVE=TOP,SHADE=80TH,8SHADE=80TH	550	AA
	ICSN=50	551	. AA
	P1=645.2,78.8,414.	552	
	P2=759.2,78.8,414.	553	AA
	P3=759.2,78.8,400.	554	AA H
	PROP= 0.,3.	555	AA 8
	COM=+ +Y PALLET1 DUTSIDE STRIP SL3 *	556	AA
5	SUPF=10F3,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	557	AA
	TOSN=50"	558	AA
	P1=645.2,-73.8,414.	559	. АД
	P2=759.2,-78.8,414.	560	AA
	P3=759.2,-72.6,414.	561	AA
	PPOP=0.,0.	562	AA
	COM=*+Y PALLET1 TOP STRIP X=645.2 TO 759.2 SL3 *	563	AA
S	SURF=1054,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	564	AA
	ICSN=58	565	AA
	P1=645.2,72.8,414.	566	AA
	P2=759.2,72.8, 414.	567	AA
	P3=759.2,78.8,414.	566	AA
	₽₽0₽=0.,0.	569	AA
	COM= * +Y PALLET1 TOP STRIP ,X= 645.2 TO 759.2 SL3 *	570	AA
S	SURF=1355,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	571	AA
	TC9N=50	572	44
	P1=545.2.=72.8,414.	573	AA
	P2=759,2,-72.8,414.	574	AA
	P3=759.2,-50.5,371.	575	AA
	PPOP=0	576	AA
	COM = # "Y INSIDE TOP PANNEL1 ,X=645.2 TO 759.2SL3 #	577	, AA
S	SUPF=1056,TYPE = RECT,ACTIVE=TOP,SHADE=ROTH,BSHADE=BOTH	. 578	AA
•	ICSN=53	579	AA
	P1=759.2,58.5,371.	580	AA
	P2=759.2,72.5,414.	581	AA

632

AA

P3=877.2,-72.8,414.

INPUT CART COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL 582 . A A P3=645.2.72.8.414. 583 AA PORP=0..0. 564 ΔΔ TOME T 4Y INSIDE TOP PANNEL1, X=645,2 TO 759,2 SL3 F SHRF=1057, TYPE= RECT, ACTIVE=TOP, SH40E=80TH, 8SHADE=80TH 585 AA AΑ 586 587 AΑ P1=645.2.-58.5.371. 588 ΔΔ P2=759.2.-58.5.371.0 589 AA P3=759.2.-34.5.344.3 ΔΔ 590 PROP=0..û. 591 ΔΔ COM=* -Y INSTDE BOTTOM PANNEL1, X=645.2 TO 759.2SL3 * ΑΔ 592 SUPF=1058,TYPE=RECT.ACTIVE=TOP.SHADE=BOTH.BSHADE=BOTH 593 ΔΔ TGSN#5J 594 ΔΔ P1=645.2,34.5,344.3 595 AA P2=759.2,74.5,744.3 596 ДД P3=759.2.58.5.371. PONPEG. 597 AA COM=* +Y INSIDE BOTTOM PANNEL1.X 645.2 TO 759.2 SL3 * 5 38 ΔΔ SUPF=1359 , TYPE= RECT.ACTIVE=TOP.SH40E=BOTH.BSH40E=BOTH 599 ΔΔ 630 ΔΔ TOSM=54 P1=645,2,-34.5,344.3 601 AA 602 ΔΔ P2=759.2.~34.5.344.3 P3=759.2.34.5.344.3 603 ΔΔ ДΔ 634 PROP= 0..0. COM=* POTTOM PANNEL 1 X=645.2 T0759.2, SL3* 605 606 AΑ SUPF=1060, TYPE=CYL, ACTIVE=OUTSIDE, SHADE=BOTH, BSHADE=BOTH ΔΔ **ずロSM=S☆** 607 ΔΔ 603 P1=759.2.0.,400. 619 AA P2=753.2,78.8,400. 610 ΑΑ P7=751.2, -78.8,400. AΑ F4=873.2. -78.8.400. 611 ΔΔ 612 PROP=1.0. COM = * PALLET2 BOTTOM CYLINDER X= 759.2 TO 873.2 SL2* 613 ΔΔ S SUPF=1G61, TYPE=RECT.ACTIV=OUTSIDE, SHADE=BOTH.BSHADE=BOTH 614 ΔΔ 615 AA TOSMESS P1=759.2,-78.8,400. 616 AΑ 617 AA P2=073.2,-73.8,460. PR=873.2.-78.8.414. 618 PonP= D.... 619 AΑ COM= + -Y PALLETP OUTSIDE STRIP SL3 * 620 AA SURF=1062.TYPE=RECT.ACTIVE=TOP.SHADE=80TH.8SHADE=80TH 621 S AΑ TCSN=51 622 ΑΔ P1=673.2.78.8.414. 623 AA P2=873.2.78.8.430. 624 AA 625 AA P3=759.2.78.8.49J. 626 AA COM=* *Y PALLETZ OUTSIDE STRIP SL3 * 627 AA SHPF=1363.TYPE=RECT.ACTIVE=TOP.SHADE=BOTH.BSHADE=BOTH 628 AA TOSN=50 629 AA P1=759.2,-73.8,414. 630 AA 631 P2=873.2,-78.8,414. AA

	Po (P=0 0 .	633	- AA
	COM=*-Y PALLET2 TOP STRIP X=759.2 TO 873.2 SL3 *	634	AA
S	. SUPF=1064,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	635	AA
	TCSN=5J	636	AA
	P1=759.2,72.8,414.	637	AA
	P2=873.2.72.8, 414.	638	AA
	P3=373.2,78.3,414.	639	AA .
	P90P=9.,0.	640	AA
	COM= * +V PALLET2 TOP STRIP ,X= 759.2 TO 873.25L3 *	641	AA
5	SUPF=1065,TYPF=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	642	AA
	*CSN=50	643	AA
	P1=759.2,-72.8,414.	644	AA
	P2=073.2,-72.8,414.	645	AA
	P3=873.2,-58.5,371.	646	AA
	P00P=0.,J.	647	AA
	COM = + -Y INSTDE TOP PANNEL2,X=759.2 TO 873.2 *	648	AA •
5	SUPF=1066, TYPE = RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH	649	AA
	TCSN=50	650	· AA
	P1=d73.2,58.5,371.	651	AA
	02=973.2,72.8,414.	652	AA
	P3=759.2,72.8,414.	653	AA
	PPOP=0.,0.	654	AA
	COM= * *Y INSIDE TOP PANNEL2, X=759, 2 TO 873, 2 SL3 *	655	AA
S	SUPF=1967, TYPE= RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH	656	AA H
	TCSN=5J	657	~~ N
	₽1=759.2,=58.5,371.	653	AA
	P2=873.2,-58.5,371.0	659	AA
	P3=873.2,-34.5,344.3	660	AA
	Po(P=0.,0.	601	AA
	COMET -Y INSIDE BOTTOM PANNEL2, X=759.2 TO 873.2 SL3 *	662	. АА
Ş	SUPF=10f8,TYPE=RECT,ACTIVE=TOP,SHADE=80TH,8SHADE=80TH	663	AA
	TCSN=53	664	AA
	P1=759.2.34.5.344.3	665	AA
	P?=873.2,34.5,344.3	666	AA
	P3=873.2,56.5,371.	667	AA
	Pa (P=0.,)).	668	AA
	COM=+ +Y INSTDE BOTTOM PANNEL2,X 759.2 TO 873.2 SL3*	669	AA
S	SURF=1063 , TYPE= RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	670	AA
	ICSM≔5J	671	AA
	P1=759.2,-34.5,344.3	672	AA
	P2=873.2,-34.5,344.3	673	AA
	P3=973.2,34.5,344.3	674	· AA
	PROP= 0	675	AA
	COM = # PALLET2 BOTTOM, X= 759.2 TO 873.2 SL3 *	676	AA
S	SUPF=1070,TYPE=CYL,ACTIVE=OUTSIDE,SHAOE=BOTH,BSHADE=BOTH	677	AA
	TC9N=54	678	AA
	P1=873.2,U.,400.	679	AA
	P2=873.2.78.8,400.	680	AA
	P3=673.278.8,400.	681	AA AA
	P4=987.2,-78.8,49d.	682 - 68 3	AA AA
	PROP=9.,00.	- 003	na.

734

ДД

SURFACE DATA INPUT BLOCK INPUT CARD COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL ΔΔ COM = # PALLETS BOTTOM CYLINDER X= 873.2 TO 987.2 SL3 * 684 ΔΔ 685 SURF=1071, TYPE=RECT, ACTIVE=OUTSIDE, SHADE=BOTH, BSHADE=BOTH S AA 686 TOSN=50 AA 647 P1=873.2.-78.8.403. AΑ 688 P2=937.2.-78.8.490. AA 669 P3=987.2,-78.8,414. AA 690 PPOP= 0..... ΔΔ 691 COM= * -Y PALLET1 OUTSIDE STRIP SL2 * AA 692 SURF=1072, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH S ДΑ 613 TOSN=53 AA 694 P1=937.2,78.8,414. AA 695 P2=987.2.78.8.430. ΔΔ 696 P3=d73.2.78.8.400. AA 697 FROP= 0...0. ΔΔ COME +Y PALLETI OUTSIDE STRIP SLZ * 698 AA 699 SUPF = 10 73, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH S A A 730 TOSN=53 ΔΔ 701 P1 = 473.2. - 78.8.414. ΔΛ 702 P2=937.2.-78.8.414. AA 703 P3=997.2.-72.8.414. AA 704 PPOP=j..j. AA 735 COM=*-Y PALLETS TOP STRIP X=873.2. TO 987.2 SL2 * ΔΔ 706 SUPF=1374, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH S AA H 737 じゃまれをつて ΔΔ 708 P1=873.2.72.9.414. 709 AA P2=937.2,72.3, 414. AA 713 P3=997.2.78.8.414. 711 ΔA P?OP=3...). AA 712 LOME * TY PALLETS TOP STRIP , X= 873.2 TO 987.2 SL3 * AA 713 SURF=1.75, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH S ΔΔ 714 ていらい=50 AA 715 P1=373.2.-72.8.414. ΔΔ 716 P2=937.2,-72.8,414. AΑ 717 P3=907.2.-53.5.371. ΔΑ 718 FROP=0..... 719 AA COM = * -Y INSIDE TOP PANNELS , X=873.2 TO 987.2SL3 * 720 ΔΔ SUPF=1076, TYPE = PECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH S AA 721 TOSN=5J AA 722 P1=947.2,58.5,371. 723 ΔA P2=937.2.72.3.414. 724 AΑ P3=973.2,72.8,414. AA 725 PO (D=0.,). AΑ 726 COM= # +Y INSIDE TOP PANNEL3, X=873.2 TO 987.2 SL3 * AA 727 SUPF=1077, TYPE= RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH S 728 AA ₹CSH=50 AA 729 P1=373.2,=50.5,371. 730 ΔΔ P2=937.2.-58.5.371.0 AΑ 731 P3=987.2.-34.5.344.3 ΔΔ 732 PPOP=0..0. ДΑ 733 COMET -Y INSIDE BOTTOM PANNELS, X=073.2 TO 987.2SL3 *

SUPF=1078, TYPC=PECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH

12345	678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345676 7 23456	770 8 EUIT NO. OLO LO.	
	TCSN=50	735	,AA
	P1=973.2,34.5,344.3	736	AA
	P2=937.2.34.5.344.3	737	AA
	P3=987.2.58.5.371.	738	AA
	PO(P=00.	739	AA
	COM=+ +Y TNSIDE BOTTOM PANNEL3,X 873.2 TO 987.2 SL3	740	AA
S	SURF=1079 , TYPE= RECT, ACTIVE=TOP, SHARE=BOTH, BSHADE=BOTH	741	AA .
	TCSN=50	742	AA
	01=373.2,-34.5,344.3	743	AA
	P2=987.2,-34.5.344.3	744	AA
	P3=987.2,34.5,344.3	745	AA
	PONP= J., O.	- 746	AA
	COM=+BOTTOM PANNELS ,X=873.2 TO 937.2, SL3*	747	AA
5	SUPF=1080, TYPE=CYL, ACTIVE=OUTSIDE, SHADE=BOTH, BSHADE=BOTH	748	AA
	165N=53	749	44
	P1=937.2,0.,400.	750	AA
	P2=937.2,78.8,400.	751	AA
	P3=987.2,-78.8,400.	752	AA
	P4=1101.2,-78.3,440.	753 .	AA
	Panp=1.,0.	754	AA
	COM = * PALLET4 BOTTOM CYLINDER X= 987.2 TO 1101.2 SL3*	755	AA
S	SURF=1381, TYPE=RECT, ACTIVE=OUTSIDE, SHADE=BOTH, BSHADE=BOTH	756	AA
_	TCSN=5j	757	AA
	P1=937.2,-78.8,400.	758	AA H
	P2=11J1.2,-78.8,430.	759 	40 4
	P3=1101.2,-78.8,414.	760	AA '
	PPOP= 0.,J.	761	AA
	COME * -Y PALLET4 OUTSIDE STRIP SL3 *	762	AA
S	SURF=1082, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH	763	AA AA
	IOSN=50	764	AA AA
	P1=1191.2,70.0,414.	765 766	AA AA
	P2=11u1.2,78.8,400.	766	AA
	P3=9d7.2,78.8,400.	767	
	PRUP= 0.,0.	768	AA
	COM=+ +Y PALLET4 OUTSIDE STRIP SL3 +	769	AA AA
S	SUFF=1083, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH	770 ·	· AA
	ICQN=50	771	AA
	P1=997,2,-78.8,414.	772 773	AA
	P2=11J1.2,~73.3,414.	774	AA
	P3=1101.2,-72.8,414.	775	AA
	PP()P=().,0.	776	AA
	COM=+-Y PALLET4 TOP STRIP X=987.2 TO 1101.2 4	777	AA
S	SURF=1084, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH	• • •	· AA
	TCSN=50	778	AA
	P1=947.2,72.8,414.	779	AA AA
	P2=1101.2,72.8, 414.	780 781	AA
	P3=1101.2,78.8,414.	781 782	AA
	PD(P=1.,1.	783 .	AA
	COM= * +Y PALLET4 TOP STRIP ,X= 987.2 TO 1101.2SL3 *	784	. AA
S	SUPF=1085, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHAGE=BOTH	785	ÂĀ
	TCSN=50		4.2

835

836

AA

TCSM=50 P1=1715.2,78.8,414.

SUPPACE DATA INPUT SLOCK TNPUT CARD TOL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL AΛ 786 P1=997.2.-72.8.414. 787 AA P2=1101.2.-72.8.414. 788 AΑ P3=1401.2.-58.5.371. AA PonP=0.,0. 789 790 AA COM = # -Y TWSIDE TOP PANNEL4.X=987.2 TO 1101.2 * AA SUPF=1096.TYPE = RECT.ACTIVE=TOP.SHADE=BOTH,BSHADE=BOTH 791 ΔΔ TCSN=50 793 AA P1=1101.2.58.5.371. ΑΑ 92=1101.2.72.8.414. 795 P3=987.2,72.8,414. 796 AΑ 797 4A COM= * +Y INSTDE TOP PANNFL4.X=987.2 TO 1101.2 SL2 * 798 AΑ SUPF=1007, TYPE= RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 799 ΔΔ 800 ΔΑ P1=917.2.-58.5.371. P2=1101.2.+58.5.771.0 801 802 ΔΔ P3=1191.2,-34.5,344.3 AA 903 PP(P=9.00 COM## -Y INSIDE BOTTOM PANNEL4, X=987.2 TO 1101.2 SL3 * 804 ΔΔ 805 S SUPF=13:89.TYP5=RECT.ACTIVE=TOP.SHADE=90TH.8SHADE=80TH 806 ΔΔ TOSM=5J ΔA P1=997.2.34.5.344.3 607 AA P2=1101.2.34.5.344.3 608 AA 809 P3=1101.2,58.5,371. 810 AA U PPOP=1..0. COM=+ +V INSIDE BOTTOM PANNEL4, X 987.2 TO 1181.2 SL3* 611 ΔΔ 812 AΑ S SUPF=1089 , TYPE= RECT.ACTIVE=TOP.SHADE=80TH.BSHADE=90TH 813 AΑ TOSN=50 P1=997.2.-34.5.344.3 914 ДД 815 P2=1101.2,-34.5,344.3 816 . AA P3=1191.2.34.5.344.3 817 ΔΔ P?(P= 0..). COM = * PALLET4 BOTTON, X= 987.2 TO 1101.2 SL3 * 818 AΑ SURF=1190,TYPE=CYL,ACTIVE=OUTSIDE,SHADE=BOTH,BSHADE=BOTH 419 I 0 S M= 5 J 820 AA 821 ΔΔ P1=1101.2.7.,440. 822 ΔΔ P2=1101.2,78.3,400. 823 ΔΔ P3=1101.2.-73.8.400. P4=1215.2,-70.0.400. 824 825 PPAP=).,0. AA COM = * PALLETS BOTTOM CYLINDER X= 1101.2 TO 1215.2 * 826 ΔΔ SUPF=1091, TYPE=RECT, ACTIVE=OUTSIDE, SHADE=BOTH, BSHADE=BOTH 827 ΔΔ ていらい=53 829 P1=1111.2.-78.8,490. P2=1215.2,-78.8,400. 830 P3=1215.2,-78.8,414. 831 ΑΑ PROP= U.,U. 832 AΑ COM= + -Y PALLETS OUTSIDE STRIP # AΑ SURF=1092, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 834

P2=1215.2,78.8,400. P3=1101.2,78.6,400. P3=1101.2,78.6,400. PROPE 00. SUPF=1097.YVPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH VCSM=50 P1=1101.2,7-76.8,414. P2=1215.2,7-72.8,414. PROPE-1.0. SUPF=1097.YVPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH PROPE-1.0. SUPF=1094.YVPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH PROPE-1.0. SUPF=1094.YVPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH P2=1215.2,72.6,414. PDOPE-1.0. SUPF=1094.YVPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH P2=1215.2,72.6,414. POPP=1.0. COM= * +Y PALLETS TOP STRIP ,X= 1101.2 TO 1215.2 * SUPF=1094.YVPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH PDOPE-1.0. SUPF=1094.YVPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH PDOPE-1.0. SUPF=1094.YVPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH POPP=1.0. SUPF=1094.YVPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH POPP=1.0. SUPF=1094.YVPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH P2=1215.2,72.8,414. P3=1215.2,72.8,414. P3=1215.2,73.8,371. P3=1215.2,72.8,414. P3=1215.2,73.8,371. P3=1215.2,73.8,	A A A A A A A A A A A A A A A A A A A
PROPE 3.0.0 COW** *Y PALLETS OUTSIDE STRIP * \$40 SUPFE1937,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **TOSM=50** P1=1191.2,-73.8,414. P2=1215.2,-73.8,414. P3=1215.2,-73.8,414. PROPE-1.0. SUPFE1996,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PROPE-1.0. **SUPFE1996,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PSUPFE1996,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PSUPFE1996,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PSUPFE1996,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PSUPFE1996,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PSUPFE1996,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PSUPFE1996,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PSUPFE1996,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PSUPFE1996,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,8SHADE=BOTH **PSUPFE1996,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH **PSUPFETPH TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH **PSUPFETPH TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOT	AA AA AA AA AA AA AA AA
SUP-1193, TYPE=RECT, ACTIVE=TOP, SHADE=80TH, 8SHADE=80TH **TCSM=50** **Pi=101.2, -73.8, 414.* **Pi=1215.2; -73.8, 414.* *	AA AA AA AA AA AA AA
S SUPF=1937,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH TCSN=50 P1=191.2,-73.8,414. P3=1215.2,-73.8,414. P3=1215.2,-73.8,371. P3=1215.2	A A A A A A A A A A A A A A A A
TCSN=50 Pi=1131.2,-73.8,414. P2=1215.2,-72.8,414. P3=1215.2,-72.8,414. P3=1215.2,-72.8,414. P3=1215.2,-72.8,414. P3=1215.2,-72.8,414. P3=1215.2,-72.8,414. SUPF=194,7YPE=PECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH TCSN=50 P1=1191.2,72.3,414. P3=1215.2,72.3,414. P3=1215.2,73.8,414. P4=1215.2,73.8,414. P4=12	AA AA AA AA AA AA
TCSN=50 P1=1191.2,-73.8,414. P2=1215.2,-78.8,414. P3=1215.2,-78.8,414. P3=1215.2,-78.8,414. P3=1215.2,-78.8,414. P3=1215.2,-78.8,414. P3=1215.2,-78.8,414. P3=1215.2,-78.8,414. P3=1215.2,78.8,414. P3=1215.2,	AA AA AA AA AA AA
P1=111.2.7-73.8.414. P2=1215.2.73.8.414. P3=1215.2.73.8.414. P3=1215.2.73.8.414. P3=1215.2.73.8.414. P3=1215.2.72.8.414. P3=1215.2.72.8.414. P3=1215.2.72.8.414. SUPF=1394,TYPE=REDT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	AA AA AA AA AA
P2=1215.2,-72.8,414. P3=1215.2,-72.8,414. PROP=7.,0. COM=*-Y PALLEIS TOP STRIP X=1101.2 TO 1215.2 * SUPF=1094,TYPE=PEDT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH 849 TOSN=50 P1=1101.2,72.0,414. P3=1215.2,72.0,414. P3=1215.2,72.0,414. P3=1215.2,73.8,414. P3=1215.2,73.8,	AA AA AA AA AA
P3=1215.2,-72.8,414. PROP="-10" COM="-Y PALLETS TOP STRIP X=1101.2 TO 1215.2 * SUPF=1394,TYPE=RET,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH TOSN=50 D1=1101.2,72.6,414. P2=1215.2,72.6,414. P0OP=3.0. COM= * +Y PALLETS TOP STRIP ,X= 1101.2 TO 1215.2 * SUPF=1095,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B55 COM= * +Y PALLETS TOP STRIP ,X= 1101.2 TO 1215.2 * SUPF=1095,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B56 CON=50 D1=1101.2,-72.6,414. P2=1215.2,-72.3,414. P3=1215.2,-72.3,414. B67 P0OP=3.0. COM = * -Y INSIDE TOP PANNELS,X=1101.2 TO 1215.2 * SUPF=1096,TYPE = RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B63 P1=1215.2,72.8,414. B65 P2=1215.2,72.8,414. B66 P3=1101.2,72.8,414. B67 P0OP=3.0. COM= * +Y INSTOE TOP PANNELS,X=1101.2 TO 1215.2 * SURF=1097, TYPE= RECT, ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B67 POP=3.0. COM= * -Y INSTOE TOP PANNELS,X=1101.2 TO 1215.2 * B67 P1=1101.2,72.8,414. B67 P1=1101.2,72.8,414. B67 P1=1101.2,72.8,414. B67 P1=1101.2,72.8,414. B67 P1=1101.2,72.8,414. B67 P1=1101.2,72.8,414. B67 P0P=3.0. COM= * -Y INSTOE BOTTOH PANNELS, X=1101.2 TO 1215.2 * SUPF=109.TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B77 SUPF=139.TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B76 SUPF=139.TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B77	AA AA AA AA
PROP=".ú" COM="+v" PALLETS TOP STRIP x=1101.2 TO 1215.2 * SUPF=1994;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH TCSN=5; D1=1101.2,72.å,414. P2=1215.2,72.å,414. P2=1215.2,72.å,414. P0=1,00 ROME * vP PALLETS TOP STRIP ,X=1101.2 TO 1215.2 * SUPF=1096;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP PALLETS TOP STRIP ,X=1101.2 TO 1215.2 * SUPF=1096;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP PALLETS TOP PANNELS,X=1101.2 TO 1215.2 * SUPF=1096;TYPE = REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE TOP PANNELS,X=1101.2 TO 1215.2 * SUPF=1096;TYPE = REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE TOP PANNELS,X=1101.2 TO 1215.2 * SUPF=1010;2,72.8,414. POPP=1,v. SURF=1097;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE TOP PANNELS,X=1101.2 TO 1215.2 * SURF=1097;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE TOP PANNELS,X=1101.2 TO 1215.2 * SURF=1097;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=1199.;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=1199.;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=1199.;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=1199.;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=1199.;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=1199.;TYPE=REST,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * ROME * vP INSIDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * ROME * vP INSIDE BOTTOM P	A A A A A A
S SUPF=1194,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH TCSN=5J P1=1101.2.72.3.414. P2=1215.2.72.3.414. P2=1215.2.72.3.414. PPOP=],,0. COH= * +Y PALLETS TOP STRIP ,X= 1101.2 TO 1215.2 * S SUBF=1195,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=ROTH ECN=5J P1=11^1.272.3.414. P2=1215.272.3.414. P2=1215.272.3.414. P2=1215.272.3.414. P3=1215.272.3.414. P3=1215.272.3.414. P3=1215.272.3.414. P3=1215.273.5.371. P3=1215.273.5.371. P3=1215.2.54.5.371. P3=1215.2.54.5.371. P3=1215.2.54.5.371. P3=1215.2.72.3.414. P3=1215.2.72.3.5.371. P3=1215.2.72.3.5.371. P3=1215.2.72.3.5.371. P3=1215.2.73.5.371. P3=1215.2.73.5.37	A A A A
SUPF=194,TYPE=RECT,ACTIVE=10P,SHADE=BOTH,BSHADE=BOTH TCSM=5 P1=1101.2,72.8,414. P2=1215.2,72.8,414. P3=1215.2,73.8,414. P3=1	A A
D1=1101.2,72.8,414. P2=1215.2,72.8,414. P2=1215.2,78.8,414. PDOP=],0. COM= * + Y PALLETS TOP STRIP ,X= 1101.2 TO 1215.2 * SUPF=109F,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=ROTH ECN=5] P1=1101.2,-72.8,414. P2=1215.2,-72.8,414. P3=1215.2,-72.8,414. P3=1215.2,-72.8,414. P3=1215.2,-72.8,414. SSUPF=1096,TYPE = RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B63 P1=1215.2,54.5,371. B64 P1=1215.2,54.5,371. P2=1215.2,72.8,414. P3=1011.2,72.8,414.	AA
D1=1101.2,72.8,414. P2=1215.2,72.8,414. P3=1215.2,72.8,414. P3=1215.2,72.8,414. P3=1215.2,72.8,414. P3=1215.2,72.8,414. S5 SUPF=1095,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=ROTH B55 ICN=5] P1=1111.2,-72.8,414. P2=1215.2,-72.8,414. P2=1215.2,-72.8,414. P3=1215.2,-72.8,414. P3=1215.2,-73.5,371. B66 C0H = * -Y INSIDE TOP PANNEL5,X=1101.2 TO 1215.2 * SUPF=1096,TYPE = RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B63 P1=1215.2,53.5,371. P2=1215.2,72.8,414. P3=1101.2,72.8,414. P3=1101.2,72.8,414. P3=1101.2,72.8,414. P3=1101.2,72.8,414. B67 C0H = * -Y INSTOE TOP PANNEL5,X=1101.2 TO 1215.2 * SURF=1097, TYPE= RECT, ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B69 SURF=1097, TYPE= RECT, ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B70 P1=1101.2,-53.5,371.0 P1=1101.2,-53.5,371.0 P3=1215.2,-33.5,371.0 P3=1215.2,-33.5,371.0 P3=1215.2,-34.5,344.3 P30P=0.,0. SURF=1097, TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B77 SUPF=1097, TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B77 SUPF=1097, TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B77 SUPF=1097, TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B77 SUPF=1097,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B77	AA
P2=1215.2,72.d. 414. P3=1215.2,78.8,414. P3=1215.2,78.8,414. P3=P3-P3-,0. COM= * +Y PALLETS TOP STRIP ,X= 11°1.2 TO 1215.2 * SUPF=1095,TYPE=PECT,ACTIVE=TOP,SMADE=BOTH,BSMADE=ROTH [CSN=5) P1=11°1.2,-72.8,414. P2=1215.2,-72.8,414. P3=1215.2,-53.5,371. P0PP=10.3,	
P3=1215.2.78.8,414. PDOP=], 0. COM= + +Y PALLETS TOP STRIP ,X= 1101.2 TO 1215.2 * SUPF=1095.TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=ROTH 1CN=5] P1=111.2,-72.8,414. P3=1215.2,-73.8,414. P3=1215.2,-73.8,414. P3=1215.2,-73.8,414. P3=1215.2,-73.8,414. P3=1215.2,-73.8,414. COM = * -Y INSIDE TOP PANNEL5,X=1101.2 TO 1215.2 * SUPF=1096.TYPE = RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B63 P1=1215.2,572.8,414. P2=1215.2,72.8,414. P3=1101.2,72.8,414. P3=1101.2,72.8,414. B65 P1=1101.2,73.8,414. B67 P0P=J.,u. COM= * +Y INSIDE TOP PANNEL5,X=11u1.2 TO 1215.2 * SURF=1097, TYPE= RFCT, ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH TCSM=50 P1=1101.2,-53.5,371. P2=1215.2,-74.5,344.3 P3=1215.2,-74.5,344.3 P3=1215.2,-74.5,344.3 P3P=P=0.0. COM=* -Y TNSTDE BOTTOM PANNEL5, X=1101.2 TO 1215.2 * SUPF=109TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B77	
PPOP=].,0. COM= + +Y PALLETS TOP STRIP ,X= 1101.2 TO 1215.2 * SUPF=1095,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=ROTH FCSN=5] P1=1101.2,-72.8,414. P2=1215.2,-72.8,414. P3=1215.2,-53.5,371. POPP=].,0. COM= * -Y INSIDE TOP PANNEL5,X=1101.2 TO 1215.2 * SUPF=1096,TYPE = RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B63 P1=1215.2,58.5,371. P2=1215.2,72.8,414. P3=1101.2,72.8,414. P3=11	AA
COM= + +y PALLETS TOP STRIP ,X= 1101.2 TO 1215.2 * SUPF=1095,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=ROTH 1CSN=5J 01=11^1.2,-72.8,414. P2=1215.2,-72.8,414. P3=1215.2,-73.5,371. ECH = * -y INSIDE TOP PANNEL5,X=1101.2 TO 1215.2 * SUPF=1096,TYPE = RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH 1CSN=EU P1=1215.2,58.5,371. P2=1215.2,72.8,414. P3=1101.2,72.8,414. P3=1101.2,72.8,414. P3=1101.2,72.8,414. P3=1101.2,72.8,414. P3=1101.2,72.8,414. P4=1215.2,72.8,414. P5=1101.2,72.8,414. P5=1101.2,72.8,414. P6=POP=D COM= * +y INSIDE TOP PANNEL5,X=1101.2 TO 1215.2 * SUPF=109 COM= * -y INSIDE TOP PANNELS,X=1101.2 TO 1215.2 * P1=1101.2,-53.5,371. P2=1215.2,-53.5,371. P2=1215.2,-63.5,371.0 P3=1215.2,-74.5,344.3 PPOP=0 SUPF=1390.TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH 875 SUPF=1390.TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH 877	AA
S SUPF=1095,TYPE=PECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=HOTH	, AA
CCN=5J	AA
D1=1101.2,-72.8,414. P2=1215.2,-72.8,414. P3=1215.2,-73.5,371. P00P=1.,3. COM = * -Y INSIDE TOP PANNEL5,X=1101.2 TO 1215.2 * SUPF=1096,TYPE = RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH ICNN=EQ P1=1215.2,58.5,371. P2=1215.2,72.8,414. P3=1101.2,72.8,414. P00P=0.,0. COM = * -Y INSIDE TOP PANNEL5,X=1101.2 TO 1215.2 * B66 SURF=1097, TYPE= RFCT, ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH P2=1215.2,-33.5,371. P2=1215.2,-33.5,371.0 P3=1215.2,-34.5,344.3 P3=1215.2,-34.3 P3=1215.2,-34.5 P3=1215.2,-34.5 P3=1215.2,-34.5 P3=1215.2,-34.5 P3=1215.2,-34.5 P3=1215.2,-34.5 P3=1215.2,-34.5 P3=1215	AA
P2=1215.2,-72.8,414. P3=1215.2,-53.5,371. B59 PPOPPI).J. COM = * - Y INSIDE TOP PANNEL5, X=1101.2 TO 1215.2 * SUPF=1096, TYPE = RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH B63 P1=1215.2,5A.5,371. P2=1215.2,72.8,414. P3=1101.2,72.8,414. POPPIJ., U. COM * * Y INSIDE TOP PANNEL5, X=1101.2 TO 1215.2 * SURF=1097, TYPE= RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH TCSM=50 P1=1101.2,-53.5,371. P2=1215.2,-53.5,371.0 P3=1215.2,-53.5,371.0 P3=1215.2,-53.5,371.0 P3=1215.2,-74.5,344.3 P3POPPE0.,0. COM=* - Y INSIDE BOTTOM PANNEL5, X=1101.2 TO 1215.2 * SUPF=1390.TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 876 P377	A A
P3=1215.2,-53.5,371. POOP=].,J. COM = * -Y INSIDE TOP PANNEL5, X=1101.2 TO 1215.2 * S SUPF=10.96, TYPE = RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH F1=1215.2, 5A.5, 371. P2=1215.2, 72.8,414. P3=1101.2, 72.8,414. POOP=J.,u. COM = * +Y INSTOE TOP PANNEL5, X=1101.2 TO 1215.2 * S SURF=10.97, TYPE= RFCT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH TCSN=50 P1=1101.2, -53.5, 371. P2=1215.2, -53.5, 371.0 P3=1215.2, -53.5, 371.0 P3=1215.2, -74.5, 344.3 POOP=0.,0. COM=* -Y TNSTOE BOTTOM PANNEL5, X=1101.2 TO 1215.2 * S SUF=10.90, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 876 S SUPF=10.90, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 877	AA
POOP=].,J. COM = * -Y INSIDE TOP PANNEL5,X=1101.2 TO 1215.2 * SUPF=1096,TYPE = RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B63 LOSM=50 P1=1215.2,5A.5,371. P2=1215.2,72.8,414. P3=1101.2,72.8,414. POOP=J.,u. COM= * +Y INSIDE TOP PANNEL5,X=1101.2 TO 1215.2 * SURF=1097, TYPE= RFCT, ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH TOSM=50 P1=1101.2,-53.5,371. P1=1101.2,-53.5,371.0 P3=1215.2,-34.5,344.3 P3=1215.2,-4.5,344.3 P3=1215.2,-4.5,344.3 P3=1215.2,-74.5,344.3 P3=1215.2,-7	1,111
S SUPF=1096, TYPE = RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH ICSN=EQ P1=1215.2, 58.5, 371. P2=1215.2, 72.8, 414. P3=1101.2, 72.8, 414. P4	AA L
S SUPF=1096, TYPE = RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH ICSN=EQ P1=1215.2, 58.5, 371. P2=1215.2, 72.8, 414. P3=1101.2, 72.8, 414. P4 OP=0, 4. COM= * +Y INSTOE TOP PANNEL5, X=1141.2 TO 1215.2 * SURF=1097, TYPE= RFCT, ACTIVE=TOP, SHADE=BOTH, 8SHADE=BOTH TCSN=50 P1=1101.2, -53.5, 371. P2=1215.2, -53.5, 371.0 P3=1215.2, -74.5, 344.3 P4 OP=0.0. COM=* +Y INSTOE BOTTOM PANNEL5, X=1101.2 TO 1215.2 * SUPF=1390, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 876 SUPF=1390, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 877	AA 66
ICSN=EU P1=1215.2,58.5,371. P2=1215.2,72.8,414. P3=1101.2,72.8,414. P3=1101.2,72.8,414. COM= * * * Y INSTOE TOP PANNELS, X=1141.2 TO 1215.2 * SURF=1097, TYPE= RFCT, ACTIVE=TOP, SHADE=BOTH, 8SHADE=BOTH TCSN=50 P1=1101.2,-53.5.371. P2=1215.2,-53.5.371.0 P3=1215.2,-74.5,344.3 PROP=0.,0. COM= * * Y TNSTOE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=1090, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 876 B77 SUPF=1090, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 877	AA
P1=1215.2,58.5,371. P2=1215.2,72.8,414. P3=1101.2,72.8,414. P0OP=J.,u. COM= * +Y INSTOE TOP PANNELS, X=1141.2 TO 1215.2 * SURF=1007, TYPE= RFCT, ACTIVE=TOP, SHADE=BOTH, 8SHADE=BOTH TCSN=50 P1=1101.2,-53.5.371. P2=1215.2,-53.5,371.0 P3=1215.2,-74.5,344.3 PPOP=0.,0. COM=* -Y TNSTOE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=1190.TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 876 B77	AA
P?=1215.2,72.8,414. P3=1101.2,7?.8,414. POOP=J.,u. COM= * +Y INSTOE TOP PANNELS, X=11u1.2 TO 1215.2 * SURF=1097, TYPE= RFCT, ACTIVE=TOP, SHADE=BOTH, 8SHADE=BOTH TCSN=50 P1=1101.2,-53.5.371. P2=1215.2,-53.5,371.0 P3=1215.2,-74.5,344.3 PPOP=0.,0. COM=* -Y TNSTOE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=11.90,TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 876 SUPF=11.90,TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 877	AA
P3=1101.2,7?.8,414. P00P=J.,u. COM= * +Y INSTOE TOP PANNELS, X=11u1.2 TO 1215.2 *	AA
POOP=J.,u. COM= * *Y INSTOE TOP PANNEL5, X=11u1.2 TO 1215.2 * SURF=1097, TYPE= RFCT, ACTIVE=TOP, SHADE=BOTH, 8SHADE=BOTH TCSN=50 P1=1101.2, -53.5.371. P2=1215.2, -53.5, 371.0 P3=1215.2, -74.5, 344.3 PPOP=0.,0. COM= * *Y INSTOE BOTTOM PANNEL5, X=1101.2 TO 1215.2 * SUPF=13.9., TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 876 B77	. AA
COM= * +Y INSTOE TOP PANNELS, X=1101.2 TO 1215.2 * SURF=1097, TYPE= RFCT, ACTIVE=TOP, SHADE=BOTH, 8SHADE=BOTH TCSN=50 P1=1101.2, -53.5,371.0 P2=1215.2, -53.5,371.0 P3=1215.2, -74.5,344.3 P40P=0.0.0 COM= * -Y TNSTOE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=1199, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH 876 B77	AA
S SURF=1097, TYPE= RFCT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH TCSN=50 P1=1101.2, -53.5.371. P2=1215.2, -53.5, 371.0 P3=1215.2, -74.5, 344.3 P70P=0.0. COM=* -Y TNSTDE BOTTOM PANNEL5, X=1101.2 TO 1215.2 * S SUPF=13.90, TYPE=RECT, ACTIVE=TOP, SHADE=BOTH, BSHADE=BOTH B76 B77	AA
TCSN=53 P1=1101.2,-53.5.371. P2=1215.2,-53.5,371.0 P3=1215.2,-53.5,371.0 P3=1215.2,-74.5,344.3 P70P=0.,0. C0M=# -Y TNSTDE BOTTOM PANNEL5, X=1101.2 TO 1215.2 * SUPF=1190,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH B76 B77	AA
P1=1101.2,-53.5,371. P2=1215.2,-53.5,371.0 P3=1215.2,-53.5,371.0 P3=1215.2,-74.5,344.3 P7OP=0.,0. COM=* -Y TNSTDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * 875 SUPF=139.,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH 876	AA
D2=1215.2,-53.5,371.0 P3=1215.2,-74.5,344.3 PROP=0.,0. COM=* -Y TNSTDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * SUPF=13.90,TYPE=RECT.ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH 876 877	. AA
P3=1215.2,-74.5,344.3 PPOP=0.,0. COM=* -Y TNSTDE BOTTOM PANNEL5, X=1101.2 TO 1215.2 * 875 S SUPF=13.0,TYPE=RECT.ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH 877	AA
PROPED.,0. COM=* -Y TNSTDE BOTTOM PANNELS, X=1101.2 TO 1215.2 * S SUPF=1390,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH 876 877	AA
S SUPF=1390,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH 876 877	AA
S SUPF=1390,TYPE=RECT,ACTIVE=TOP,SHADE=BOTH,BSHADE=BOTH	AA
TOCH-C3	AA
TCSN=50	AA
* * * * * * * * * * * * * * * * * * *	ÃA
P1=11u1.2,34.5,344.3	AA
P2=1215.2,34.5.344.3	AA
07=121F ₀ 2,58 ₀ 5,3/1 ₀	· AA
P5^P=nn.	AA
COM-4 14 INCLUE HOLLOW LUNGTOWN TITATES IN THETATE	AA
S CURF=1099 , TYOE= RENIADITYE=10F; SHADE=BOTH; 930A02=00111	AA
TC9N=5]	
P1=11u1+2y=54+5y344+3	AA
P2=121F.2.+ 34.5,344.3	A A A A
P3=1215 . 2 , 74 . 5 , 74 4 . 3	

MODEL = CONTAM SURFACE DATA INPUT BLOCK

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

TNPUT DAPO COL. = 12345678 1 2345678 2 2345678 3 2345678 4 2345678 5 2345678 6 2345678 7 2345678 8 EDIT NO. OLD EDIT NO. LABEL

PROP= 0..0. COM=*PALLET 5 BOTTOM, X=1011.2 TO 1215.2 SL2* 888 - AA 869 - AA

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SPACELAB-3 VIEWFACTOR DATA MATRIX

The following pages contain the viewfactor data computer printouts for the Spacelab-3/Orbiter configuration.

.Y REAR SIDE TAPER

14.013

14.603

15.355

FF SUM = 0.

145

20

21

1368

1359

1772

CAL.

CAL.

CAL

							- 0.40	w	0510 ST	E 71858	
146	FF SUM	= 0.	RON CP	TIME =	2.790		- TRAP	- 4	KEAK SIU	E TAPER	
					•				•		
707	FF SUM	= 0.	ROW CP	TIME =	6.081	-	- oisc	• • • •	JULY 8 E	.NE E PAV	RAD.
			,								
708	FF SUM	= 0.	ROW CP	TIME =	2.405	·	+ DISC	• • • •	JULY 8 E	VAP3 IN.	RAD.
- "	•										
147	FF SUM	= 9.	ROW CP	TIME =	14.369	•	+ PARAB	TOP	ENGIN		•
147	FF SUN	- 4.	KON OI	. 111.	244007						
				<u>.</u>					ENCTH		
148	FF SUM	= 0.	RON CP	TIME =	6.310		+ PARAB	, + Y	ENGIN		
			-								
1 49	FF SUM	= 0.	ROM CP	TIME =	6.286		+ PARAB	- Y	ENGIN		
			(4	INDICATE	S NOTE PA	TP HAS RE	FEN SUADI	VTDEO) L			
NOOE I	NODE 1	COMPUTATION	FE(I,J) H/SH4D	FE(J,I) W/SHAD	FA(I,J) W/SHAB	F (I,J) WO/SHAD		SHAD. A	CP TIME (SEC):		
			.000041	.000095	.000041		1.000000	4 - 690000	.898		
20	1352	CAL.					1.000000		2,643		
20	1957	CAL.	.000062	.000335	.013062		1.000000		4.127		
20	1354	DAL.	.000072		.003072		1.000000		4.897		
2 0	1055	CAL.	.001312	.030942	.001312		1.000000		5.280		
20	1055	DAL.	.000078	.010054	.000078		1.000000		6.067		
20	1057	CAL	.0(1059	.000969	0.1069		.913009		6.748		
20	1059	CAL.	000275	.001249	.030275		1.000000		7.336		
21	1759	CAL.	.001554	.003733	.031554		1.000000		8.162		
27	1052		.000086		.000080				9.850		
20	1963	CAL.	.900113	.171599	.000110		1.003000		11.313		
20	1364	CAL.	.000141	.000764	.000141	- 1	1.000000				
23	1965	~	002336	.701678	.002376		1.000070		12.549		
20	1166	CAL	.007164	.003118	. 00164		1.000000				
20	1057	CAL.	.001397	.001720	.001897		1.000000		13.320		
~ ~	4000	0.64	0.00544	. 007467	.970644	_ U E (1 55 i)	. 911353	. 411.353	14.013		

.000511 .00746% .030511 .060560 .911353 .911353

.002312 .001326 .002012 .002912 1.000000 1.000000

.000187 .000435 .000187 .000187 1.000000 1.000300

2.009

+ TRAP

ROW CP TIME =

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) \$

•			1.	[MOTORIE	2 MODE FA	TK HM2 U	-C14 30002	11000,		1
NONE I	NO05 1	COMPUTATION	FE(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SHAD	F (I,J) WO/SHAB	SHAD. E FACTOR	SHAD. A FACTOR	CP TIME (SEC):	
	4 4 7 7	CAL.	.900217	.001177	.000217	.600217	1.000000	1.000000	16.856	
20	1473	CAL	.000329	991786	.006329	.000329	1.000000	1.000000	18.179	
20	1074		.000323	.903288	.004577	.004577	1.000000	1.000000	18.848	
29	1075	. ዮላኒ.		.000265	J00369	.000369	1.000000	1.000000	19.279	
20	1376	CAL.	.000369	.003344	an 3688	003688	1.000000	1.000000	19.962	
20	1077	CAL .	•80°688	.000985	.001046	.001196	.907070	907474	20.579	
20	1078	CAL.	.001086		.005682	1001130	1.000000	1.000000	21.120	
20	1^79	CAL.	105682	.002681		. 00644	1.000000	4 000000	21.009	
20	1042	CAL.	.000511	.001421	.030611	0000011	1.000000	1.000000	23.112	
23	1033	CAL.	.010457	0)2479	.000457	000427	1.000000	4.000000	24.267	
2.0	1394	nal .	.001358	.035742	.0.1058	0011770	1.000000	1.000000	24.862	
20	1385	CAL .	.009572	.035876	.009572	0019772	1.000000	4.000000	25.248	
20	1785	CAL.	.061350	.000752	.001960	.001350	1.000000	4.000000	25.867	
20	1097	Cor	.067595	.096987	.147595	007777	.898935	.898935	26.438	
20	1039	CAL.	.002719	.002466	.002719				26.909	
20	13 69	. ^AL.	.012723	.005002	.012723		1.000000		27.536	
23	1192	CAL.	.003709	.003625	•033709		1.000030		26.635	
20	1093	CAL.	.903747	.004052	.003747		1.000000		29.639	
20	1494	CAL	.005846	031716	.005846	. 205846	1.000007	1.00000		
20	1195	CAL.	.015514	.011144	.015514	015514	1.000000	1.000000	30.128	
28	10 95	CAL.	.0ü371ü	•992665	.303710	.003710	1.000000	1.033000	30.476	
20	1097	CAL.	.011959	.012543	.011959		1.000000		30.993	
20	1098	<u>ሮልኒ</u>	.016441	.015940	.006441	.007381		.872652	31.474	
20	1999	CAL.	.023784	.011221	.123784	.023784	1.060000	1.000000	31.874	
21	FF 984	= .1362	ROW CP	TIME =	31.680		+ DISC	• • • *	Y OWS SEALE	IR •••
	4004	041	.ursj41	.010095	.300341	. 000341	1.046380	1.000000	.846	
21	1951	CAL.	.900972	.000393	.000072		1.000000		2.380	
21	1353	CAL.	.000065	001335	.300362	.000362	1.0000036	1.000000	4.128	
21	1054	CAL.		073062	.000046		1.0000000		4.597	
21	1955	CAL.	.000086 .001297	001933	.011297	.001297	1.000000	1.000000	5.369	
21	1055	CAL.	.000275	.0012+9	.000275		913009		6.653	
21	1057	64.	.001069	.000249	.031069	-001169	1.000000	1.000000	6.847	
21	1058	CAL.		.000733	.301554		1.630000		7.438	
21	10 59		.001554		000000	0.001074	1.000000	1.000000	8.225	
21	1351	CAL.	-300080	.003165	.300141	-000369	1.030000	1.000000	9.732	
21	1163	CAL	.000141	.000764		.000141	1.000000	1.000000	11.419	
21	1964	CAL.	.003113	.000599	.000110	1000110	1.003030	4 000000	11.892	
21	1965	CAL.	.000164	.003118	.]09164	* 000124	1.0000000	7 600000	12.656	
21	1165		.002336	.301578	.002336	* US 2 3 3 5	1.000000	.911353	13.352	
21	1367	CAL.	.000511	.039463	.030511	000000b	.911353 1.030000	1 680000	14.129	
21	1168	DVF.	.051397	.001729	.001897	0.01597	1.000000	4 [[0.000]	14.720	
21	1759	DAL.	.602812	.001326	•102812	00014	1.000000	4.00.000	15.441	
21	1071	CAL.	.000187	.030435	.000137	0.00.300	1.000000	4.000300	16.884	
21	1373	CAL.	.000329	+031786	.000329	000247	1.000000	1.000100	18.302	
21	1074	CAL.	.003217	•931177	.010217	.00021/	1.0000000	7103000	10100	·

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED).

										1	
Nobe I	ио D¤ Ј	COMPUTATION	FE(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SHAD	F (T,J) WO/SHAD	SHAD. E FAÇTOR		CP TIME		
21	1 ú 7 °	ca.,	. 00 369	.000265	.030369	.000369	1.003000	1.000000	18.726		
21	1075	CAL.	004577	.003289	.004577	.004577	1.030000	1.000000	19.419		
21	1377	raL.	001086	.001985	.031086	.001196	.907878	.907875	20.041		
21	1378	CAL.	.203658	.003344	.003688	• Bu 3588	1.800000	1.080000	20.726		
21	1979	CAL.	005682	.002681	.015632	.005592	1.000000	1.000000	21.264		
21	10 81	CAL.	.009611	. 101421	000511		1.000000		21.924		
21	1033	CAL	.001058	.003742	.001058	.001058	1.003800	1.000000	23.141		
21	1734	CAL.	.DC0457	.002479	.000457		1.000000		24.424		
21	1005	CAL .	0.1360	000762	001060		1.000000		24.812		
21	1165	CAL	009572		009572	.009572	1.0000008	1.690000	25.396		
21	13 97	CAL	002719	002466	0,2719	.003325	498935	.898935	25.975		
21	1039	CAL.	007395	.005887	.07595		1.090030		26.587		
21	1,39	CAL.	012723	-205002	012723		1.000000		27.057		
21	1031	CAL	003739	.008625	003709		1.000000		27.636	*	
21	1093	CAL.	005346	.031715	005846		1.000000		28.683		
21	1094	CAL.	000747	.004952	.000747		1.000000		29.779		
21	1395	GAL.	.003710	.002665	193710		1.000000		30.124		
21	1335	CAL.	.015514	.011144	015514		1.000000		30.613		
		CAL.	056441	.005840	116441		872552		31.093		
21	1097	CAL.	•011959	.019043	011959		1.000000		31.600		
21	10.98			.01984	.123784		1.003010		31.997		•
21	1 ⊌ 99	CAL.	.023784	.111251	.023/04	1020.04	1.000010	1.030000	314321		
21	FF SUM	= .1361	≎OH CP	TIME =	32.004		• OISC	• • • *	Y OWS SEA	LER	
?22	FF SUM	= 0.	KOM Cb	TIME =	1.837		- PECT	BA	CK REGT	7.350EG	
23	FF SUM	≖ 0•	ROW CP	TIME =	2 • 124		+ DISC	REA	R ENG HAL	F DISK	
407	FF SUM	= 0.	, ROW CP	TIME =	2.421		+ DISC	BA	CK SIDE E	VAPORAT,	UPDATED
15	FF SUH	= 0.	SUM Ch	TIME =	2.408		+ DISC	REA	R END EVA	PORATOR	
10	F# SUM	= 0.	RON CP	TIME =	19.572		- TRAP		LEFT FRON	T WING A	A

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(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED):

			•	111313111					ŧ		
NODº I	NODF J	COMPUTATION	FE(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SHAD		HAD. E FACTER	SHAO+ A GP TIM FACTOR (SEC)			
11	FF SUM	= 0.	ROW CP	TIME =	6.438	•	TRAP	LEFT	MIDDLE WING	BACK.B	
141	FF SUN :	= 0.	ROW CP	TIME =	12.742	+ 1	RECT	BS INNER	WING		
12	FF SUM :	= 0.	ROW CP	TIME =	4.730	.	RECT	••••• LEF	T BACK RECT	. WING C	
142	FF SUM	= û.	ROH CP	TIME =	4.608	• (RECT	INNER WIN	G C		
13	FF SUM	= 0•	ROW CP	TIME =	3.564	•	TRAP	LEF	T WING TAIL	EDGE	
1	FF SUM	= 0.	ROW CP	TINĒ =	32.843	•	TRAP	FRONT HI	NG TRIANGLE	RT.A.58	
2	FF SUM	≖ 9°•	RON CP	TTME =	6.456	•	TRAP	•••• MIDDLE	WING TRAP,	RT B	,
143	FF SUM :	= 0.	RON CP	TIME =	12.983		RECT	8 +¥ RECTA	NGLE WING		
3	FF SUM :	= 0.	ROW OP	TIME =	4.781	-	RECT	···· BACK W	ING RECT.	RTC •129	
144	FF SUM	= 0.	 ROW CP	TIME =	4.707	-	RECT	INNER WI	NG C RECT	·	
4	FF SUM	= 0.	ROW CP	TIME =	3.601	-	TRAP	HING TAI	L FLAP RT 1	453,1507	
150 150 150 150	1950 1052 1960 1162 1670	Cat. Cat. Cat.	\$20000.00000.00000.00000.00000.00000.00000	.000046 .001099 .001147	.000032 .00003 .00010 .00003	.000032 1. .000003 1. .000100 1. .001036 1.	000000 000000 000000	1.000000 .9 1.000000 2.7 1.000000 3.3	11		

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED):

			•	ZHOSONIE		J.				
NOUE I	ע ∍מיסא	COMPUTATION	FE(I,J)	FE(J,I)	FA(I,J) W/SHAD	F (I,J) WD/SHAD	SHAD. E FACTOR		CP TIME	
					_				,	
150	1072	GAL.	•000046	.003800	.000046		1.0000000		5.636	<u>.</u> .
150	1939	CAL.	.044185	.047898	.044185	•	1.000000		17.204	•
150	1382	CAL.	.001319	.031953	.001519		1.000000		19.038	*
150	1000	CAL.	.430157	.427370	,430157	.430157	1.033000	1.000000	72,227	*
150	10 92	maL.	.016158	.283856	.016158	.016158	1.000000	1.000000	76.858	
157	1095	CAL.	005355	.029464	.005355	.036435	•146972	•146972	82.231	
150	1097	CAL.	002933	.020097	.002933	.026519	.110619	.110619	85.321	
1,50	FF SUM	= .5013	ROH CP	TIME =	65.693	•	- CYLN	BAY	AREA CYLIN	DER
	40.50	041	0.00217	.000215	.000217	. 000217	1.000000	1.000000	.369	
151	1953	CAL .	.000019	.903330	.000019		1.000000			
151	1052	CAL.		.CO1735	.001746		1.000000			
151	1060	CAL.	.001746	.003158	.000163		1.000000		2.729	
151	1752	nal.	300180				1.000000			#
151	1070	CAL .	• 2F4467	262753	264467		1.000000			
151	40.25	CAL.	010037	.176340	.010037	.010331	1.000000	4 000000	94.987	*
151	10,80	CAL .	.466454	.403921	436454	.406+54	1.000000	1.000000	99.747	•
151	1082	SALL	.015003	.264986	.015783		1.000900			
151	1097	CAL.	.018229	.018111	.018229		1.000000			*
151	1985	CAL.	.000955	.016783	.000955	•000955	1.0000000	1.609933	114.501	•
151	EF SUM	7174	ROW CP	TTME =	117.554		- CYLN	BAY	AREA CYLIN	IDER
			073509	.070051	_070508	. 070509	1.000000	1.000000	13.483	•
152	1050	CAL.	.070508 .002707	.047565	012707	-	1.000000			#
152	1952	CAL.			.439739		1.000000			*
152	1050	CAL.	439739	.436890			1.003300			
152	1962	GAL .	.016381	.287782	.016781		1.000000			*
152	1070	CAL.	185059	.184665	135869		1.000000			#
152	1072	CAL.	007101	.124743	.907131	004105	1.000000	4 003000		
152	1787	CAL .	.001095	.001033	.001095					
152	1082	CAL	.000107	.991887	.380107		1.080000			
152	1 7 9 0	cør•	.000164	.003153	.000164		1.000030			
152	1092	CAL.	.000314	.003247	.000014	.000014	1.000000	1.00.000	105.552	
152	FF SUM	= .7237	ROW CD	TIME =	106.784	•	- CYLN	BAY	AREA CYLIN	IDER
153	1050	CAL.	300456	.387926	.390456	.390456	1.000000	1.690000	19.382	#
157 157	1952	CAL	014222	.249860	014222		1.000000			*
		CAL.	•007301	139625	.007301	· ú 34 3 7 0				
153	1355	CAL •	103133	.021809	.033103	.024728				
153	1057		.103103	.úC2574	.000722	.013387				
1,53	1959	CAL.	.011641	.911566	.011641		1.090930			
157	1060	PAL.		011647	.330563	4000063	1.000000	1.000000	37.562	#
153	1052	CAL+	•B0u663	*011047	*115009	* 0 0 5 0 0 0	1.000000		0.02	

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED)

NODE I NODE J COMPUTATION FE(I,J) FE(I,J) FA(I,J) FA(I		(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED)													
153 1970				SCAT II	EE (). T\	FAIT. II	E (T11	SHAD. E	SHAD. A	CP TIME					
153 1970 CAL. 000352 .00055 000032 1.03630 1.03000 40.382 153 1030 CAL. 003379 .000797 000079 1.000001 1.00000 41.642 153 1030 CAL. 100307 000116 3.00007 1.000001 1.00000 42.104 153 1090 CAL. 000002 .000379 .000797 000007 1.000001 1.00000 42.104 153 1090 CAL. 000002 .00039 000002 .000302 1.000001 1.00000 43.971 153 1092 CAL. 000002 .00039 000002 .000302 1.00000 43.971 153 1992 CAL. 000002 .00039 000002 .000302 1.00000 43.971 154 1050 CAL. 000003 .0000046 .700033 .000003 1.00000 43.971 155 1051 CAL. 000003 .000046 .700033 .000003 1.00000 .000000	NOOE I	NODE 1	COMPUTATION	MASHAD	MISHAD										
153 137	4	4470	P.A.	. በበባ 354	. 000352	.000354	.000354	1.000000	1.000000						
153 105U CAL							.000032	1.000000	1.000000	40.382					
153 1032 CAL.							- 000079	1.000000	1.000000	41.642					
103							- 000107	1.000000	1.000000	42.104					
153 1397 CAL							000007	1.000000	1.033000	43.479	,				
153							.000327	1.000000	1.000000						
154	153	1392	CAL.	.000002	. 300039	*********	* 68 0 20 5	1.000000	-	•					
154 1950 CAL000003 .000046 .000003 1.004000 1.000000 .905 154 1951 CAL000003 .000046 .000103 .000000 1.000000 2.816 154 1961 CAL000008 .000147 .000008 .000008 1.000000 1.000000 2.816 154 1961 CAL000008 .000147 .000008 .000008 1.000000 1.000000 3.3309 154 1970 CAL000498 .000498 .000498 .000098 1.000000 1.000000 5.211 154 1071 CAL000449 .000498 .000498 .000498 .000000 1.000000 5.211 154 1080 CAL004485 .047898 .044185 .000000 1.000000 1.000000 5.646 154 1081 CAL001419 .031953 .001819 .031191 1.000000 1.000000 19.148 * 154 1081 CAL430157 .42770 .430157 .30157 1.000000 1.000000 19.148 * 154 1081 CAL315158 .287066 .016158 .016158 1.000000 1.000000 76.673 154 1996 CAL005355 .029054 .000293 .036435 1.66972 .146972 82.113 154 1098 CAL00237 .020097 .002933 .126519 .110619 .11u619 .51.79 154 FF SUM = .5u13 ROM CP TIME = 85.500	153	FF SUM	= .4287	ROW OP	TIME =	45.078		- CYLN	BAY	AREA CYLIN	DER				
154 1950 CAL000003 .000046 .000003 1.004000 1.000000 .905 154 1951 CAL000003 .000046 .000103 .000000 1.000000 2.816 154 1961 CAL000008 .000147 .000008 .000008 1.000000 1.000000 2.816 154 1961 CAL000008 .000147 .000008 .000008 1.000000 1.000000 3.3309 154 1970 CAL000498 .000498 .000498 .000098 1.000000 1.000000 5.211 154 1071 CAL000449 .000498 .000498 .000498 .000000 1.000000 5.211 154 1080 CAL004485 .047898 .044185 .000000 1.000000 1.000000 5.646 154 1081 CAL001419 .031953 .001819 .031191 1.000000 1.000000 19.148 * 154 1081 CAL430157 .42770 .430157 .30157 1.000000 1.000000 19.148 * 154 1081 CAL315158 .287066 .016158 .016158 1.000000 1.000000 76.673 154 1996 CAL005355 .029054 .000293 .036435 1.66972 .146972 82.113 154 1098 CAL00237 .020097 .002933 .126519 .110619 .11u619 .51.79 154 FF SUM = .5u13 ROM CP TIME = 85.500						444575	040070	4 003356	4 620000	. 617					
154 1051 CAL000003 .000049 .000100 .1000100 1.000000 2.816 154 1050 CAL002008 .000147 .000008 .000008 1.000000 3.309 154 1770 CAL002008 .000147 .000008 .000008 1.000000 5.211 154 1770 CAL00494 .00495 .006498 .000098 1.000000 1.000000 5.211 154 1071 CAL00494 .00495 .006498 .000098 1.000000 1.000000 5.241 154 1071 CAL00494 .00095 .006498 .000098 1.000000 1.000000 5.646 154 1080 CAL144185 .047898 .044185 .000000 1.000000 1.000000 5.646 154 1080 CAL00149 .00195 .001819 .001914 1.000000 1.000	154	1959	CAL.	-			.000032	1.000000	1.000000						
154 1050 CAL. 000108 000147 001003 1.000101 1.000101 2.010 154 1051 1071 CAL. 0001498 .000498 .000498 1.001000 1.000100 5.211 154 1071 CAL. 0144165 .447898 .004498 .000498 1.001000 1.000000 5.211 154 1080 CAL. 0144165 .447898 .044185 .044185 1.000001 1.000000 5.246 1081 CAL. 0144165 .447898 .044185 .000001 1.000000 1.7.337 * 154 1081 CAL. 0144165 .477808 .044185 .001011 1.000000 1.000000 1.7.337 * 154 1081 CAL. 315158 .26366 .016158 .016158 1.000001 1.000000 1.7.337 * 154 1091 CAL. 015355 .029054 .905355 .036435 1.46972 .149972 .22113 154 1098 CAL. 000393 .020097 .002933 .036435 .146972 .146972 .146972 .159972 .159972 .159972 .002933 .028019 .110619 .111619 .85.179 1.55 1051 CAL. 000010 .00000 .734 .000010 .000000 .734 .155 1051 CAL. 010100 .000100 .000000 .734 .155 1051 CAL. 010100 .000100 .000000 .734 .155 1051 CAL. 010100 .000100 .000000 .000000 .734 .155 1070 CAL. 010100 .000100 .000000 .734 .155 1070 CAL. 010100 .000100 .000000 .734 .155 1070 CAL. 010100 .000100 .000000 .734 .000000 .000000 .734 .155 1070 CAL. 010100 .000100 .000000 .734 .000000 .000000 .734 .155 1070 CAL. 0100000 .754 .40654 .40684 .403821 .406454 .001000 .000000 .000000 .734 .155 1070 CAL. 0100000 .754 .40684 .405821 .406454 .000000 .000000 .000000 .734 .155 1070 CAL. 0100000 .000000 .000000 .000000 .000000 .000000		1951	CAL.	.000003	•000046		.000003	1.000000	1.000000						
154 1070 CAL. 0001498 .000147 .070008 .000498 1.000000 1.000000 5.211 154 1071 CAL. 0.004498 .000498 .000498 1.000000 1.000000 5.211 154 1071 CAL. 0.004498 .000498 .000498 1.000000 1.000000 5.211 154 1080 CAL. 0.44185 .04485 .04485 1.000000 1.000000 1.00000 1.00000 154 1081 CAL. 0.01419 .031953 .001819 .001819 .010119 1.000000 1.000000 19.148 * 154 1091 CAL. 430157 .42770 .430157 .430157 1.000000 1.000000 19.148 * 154 1091 CAL. 0.05355 .229654 .016158 .016158 1.000000 1.000000 71.961 * 154 1098 CAL. 0.05355 .229654 .016583 .126972 .146972 82.113 .154 1098 CAL. 0.02973 .020097 .002933 .126519 .110619 .111619 85.179 155 1050 CAL. 0.00019 .000097 .002933 .126519 .110619 .111619 85.179 155 1051 CAL. 0.000180 .0013163 .000001 .000000 1.000000 .794 155 1050 CAL. 0.00180 .0013163 .000001 .000000 1.000000 2.314 155 1051 CAL. 0.00180 .0013163 .000001 .000000 1.000000 2.724 155 1051 CAL. 0.10180 .0013163 .000000 .001746 1.000000 1.000000 2.724 155 1051 CAL. 0.10180 .0013163 .000000 .001746 1.000000 1.000000 2.724 155 1070 CAL. 0.10180 .0013163 .000000 .000000 1.000000 2.724 155 1070 CAL. 0.10180 .0013163 .000000 .000000 0.00000 2.724 155 1070 CAL. 0.10180 .0013163 .000000 1.000000 1.000000 2.724 155 1070 CAL. 0.10180 .00180 .00000 0.000000		1050	CAL.	.900100	•000099		.000100	1.000000	1.000000						
154 1773			CAL	.000008	.000147	.000008	.000008	1.003000	1.000000						
154 1071 CAL	-		CAL .	.000498	.000495	.000498	.000498	1.0000000	1.000000						
154 1080 CAL144185 .04485 .044185 .000001 1.000001 17.337 . 164 1081				. 9 4 9 4 4 6	.000330	. 300945	.000346	1.050300	1.00000	- • •	_				
194 1081		-				.044185	.044185	1.000000	1.000000	_					
154 1090 CAL						.001819	.031519	1.3.0000	1.030000						
154 1791 CAL	-					430157	430157	1.0000000	1.0000000						
154 1096 CAL005355 .J20064 .D05355 .G36435 .146972 .146972 82.113 154 1098 CAL005375 .J20064 .D05355 .G36435 .146972 .146972 82.113 154 1098 CAL0062973 .020097 .D02933 .J26519 .110619 .110619 .85.179 154 FF SUM = .5u13 ROM CP TIME = 85.500 - CYLN BAY AREA CYLINDER 155 1050 CAL006217 .000215 .D00217 .D00217 1.000000 1.000000 .794 155 1050 CAL010746 .D01775 .D01746 .D00700 1.000000 2.314 155 1050 CAL010180 .003168 .000168 .000168 .D01746 .D00700 1.000000 2.724 155 1061 CAL000180 .003168 .D0180 .D007180 1.000000 1.000000 2.724 155 1061 CAL026467 .266753 .264467 .264467 1.000000 1.000000 2.724 155 1070 CAL026467 .266753 .264467 .264467 1.000000 1.000000 30.433 * 155 1070 CAL010037 .176740 .D10037 .D10037 .G00000 1.000000 .D06300 .D063000 .D06300 .D06300 .D06300 .D06300 .D063000 .D063000 .D06300 .D06300 .D06300 .D063000 .D06300 .D06300 .D063000 .D063000 .D063000 .D06300 .D063000 .D06300 .D063000 .D06300 .D063000 .D063000			-				016158	1.600000	1.0000000	76.673					
154 1098 CAL		_													
155								.110619	•11u619	85.179					
155				201 25		45 50O		- CYEN	BAY	AREA CYLIN	DER				
155 1051 CAL. 00138 001735 011746 001746 1.000000 1.000000 2.314 155 1051 CAL. 000180 .003163 .000180 .000130 1.000000 1.000000 2.724 155 1070 CAL. 264467 .262753 .264467 .264467 1.000000 1.000000 30.433 * 155 1071 CAL. 010037 .176340 .010037 .010037 1.000000 1.000000 36.483 * 155 1070 CAL. 010037 .176340 .010037 .010037 1.000000 36.483 * 155 1070 CAL. 015383 .264986 .015383 .015383 1.000000 1.000000 95.828 * 155 1081 CAL. 015383 .264986 .015383 .015383 1.000000 1.000000 114.260 * 156 1091 CAL. 010229 .018111 .018229 .018229 1.000000 1.000000 114.260 * 157 1091 CAL. 000005 .015783 .000955 .000955 1.000000 1.000000 115.326 * 158 1070 CAL070538 .070951 .070508 1.000000 1.000000 13.492 * 156 1051 CAL070538 .070951 .070508 1.000000 1.000000 13.492 * 156 1051 CAL039739 .436890 .439739 .439739 1.000000 1.000000 67.669 * 156 1070 CAL165369 .184665 .135669 1.000000 1.000000 93.831 *	154	FF SU4	= .5013	KOM (P	1175 -	0,34,300		V, 2							
155 1051 CAL. 00138 001735 011746 001746 1.000000 1.000000 2.314 155 1051 CAL. 000180 .003163 .000180 .000130 1.000000 1.000000 2.724 155 1070 CAL. 264467 .262753 .264467 .264467 1.000000 1.000000 30.433 * 155 1071 CAL. 010037 .176340 .010037 .010037 1.000000 1.000000 36.483 * 155 1070 CAL. 010037 .176340 .010037 .010037 1.000000 36.483 * 155 1070 CAL. 015383 .264986 .015383 .015383 1.000000 1.000000 95.828 * 155 1081 CAL. 015383 .264986 .015383 .015383 1.000000 1.000000 114.260 * 156 1091 CAL. 010229 .018111 .018229 .018229 1.000000 1.000000 114.260 * 157 1091 CAL. 000005 .015783 .000955 .000955 1.000000 1.000000 115.326 * 158 1070 CAL070538 .070951 .070508 1.000000 1.000000 13.492 * 156 1051 CAL070538 .070951 .070508 1.000000 1.000000 13.492 * 156 1051 CAL039739 .436890 .439739 .439739 1.000000 1.000000 67.669 * 156 1070 CAL165369 .184665 .135669 1.000000 1.000000 93.831 *	455	4 55 0	CAI	.000217	.000215	000217	.900217	1.6.0000	1.033000	.373					
155 1050		_				.300019	.000319	1.000000	1.000000	.794					
155 1061 CAL000180 .003163 .000180 .000130 1.000000 1.000000 2.724 155 1070 CAL264467 .262753 .264467 .264467 1.000000 1.000000 30.433 * 155 1071 CAL013037 .176340 .010037 .010037 1.003000 1.000000 36.483 * 155 1080 CAL466454 .403821 .406454 1.003700 1.000000 95.828 * 155 1081 CAL015083 .264986 .015083 .015083 1.000000 1.000000 100.619 155 1091 CAL013229 .018111 .013229 .018229 1.000000 1.000000 114.260 * 155 1091 CAL000395 .015783 .000955 1.000000 1.000000 115.326 * 155 1091 CAL070508 .070508 1.000000 1.000000 115.326 * 156 1050 CAL070508 .070508 1.000000 1.000000 13.492 * 156 1051 CAL070508 .070508 1.000000 1.000000 16.0032 * 156 1050 CAL02707 .047565 .02707 .002707 1.000000 1.000000 16.0032 * 156 1050 CAL439739 .436890 .439739 .439739 1.000000 1.000000 63.143 * 156 1051 CAL266381 .287782 .016381 1.000000 1.000000 93.831 * 156 1070 CAL165369 .134665 .135669 1.000000 1.000000 93.831 *					· 	011746	.001746	1.000700	1.000000	2.314					
155 1070			_				.000130	1.000000	1.000000	2•724					
155 1071 CAL010037 .176340 .010037 .010037 1.000000 36.483 * 155 1080 CAL406454 .403821 .+06454 .406.54 1.000000 95.828 * 155 1081 CAL015083 .264986 .015083 .015033 1.000000 1.000000 100.619 155 1090 CAL016229 .016111 .016229 .018229 1.000000 1.000000 114.250 * 155 1091 CAL000055 .015783 .000955 .000955 1.000000 1.000000 115.326 * 155 FF SUM = .7174 ROW CP TIME = 118.426 - CYLN SAY AREA CYLINDER 156 1051 CAL070506 .07051 .070508 1.000000 1.000000 13.492 * 156 1051 CAL02707 .047565 .002707 .002707 1.000000 1.000000 16.0032 * 156 1050 CAL439739 .436890 .439739 1.000000 1.000000 63.143 * 156 1051 CAL266381 .287782 .016361 .016381 1.000000 1.000000 93.831 * 156 1070 CAL165369 .184665 .135669 .185669 1.000000 1.000000 93.831 *							. 264467	1.000000	1.000300	30,433					
155 1980 CAL	-		-		- · · · · · · · ·		.010037	1.663000	1.000000	36.483					
155 1081 CAL015]83 .264986 .015]83 .015]33 1.000000 1.000000 100.619 155 1081 CAL016]229 .016]111 .016]229 .018]229 1.000000 1.000000 114.250 * 155 1091 CAL00]955 .015783 .000955 .000955 1.000000 1.000000 115.326 * 156 1050 CAL0705]6 .070051 .0705]6 .070508 1.000000 1.000000 13.492 * 156 1051 CAL02707 .047565 .002707 1.000000 1.000000 16.032 * 156 1050 CAL02707 .047565 .002707 1.000000 1.000000 16.032 * 156 1050 CAL439739 .436890 .439739 1.000000 1.000000 63.143 * 156 1051 CAL266381 .287782 .016381 .016381 1.000000 1.000000 93.831 * 156 1070 CAL185369 .184665 .185669 .185669 1.000000 1.000000 93.831 *			· ·				466.54	1.0011111	1.000000	95.828	-				
155 1790 CAL018229 .018111 .018229 .018229 1.007000 1.000000 114.260 * 155 1091 CAL003955 .015783 .003955 .003955 1.000000 1.000000 115.326 * 155 FF SUM = .7174 ROW OP TIME = 118.426 - CYLN SAY AREA CYLINDER 156 1750 CAL070538 .070051 .070508 1.000000 1.000000 13.492 * 156 1751 CAL002707 .047565 .702707 .002707 1.000000 1.000003 16.032 * 156 1767 CAL439739 .436890 .439739 1.000000 1.000000 63.143 * 156 1767 CAL016381 .287782 .016381 .016381 1.000000 1.000000 67.669 156 1770 CAL185369 .184665 .135869 1.000000 1.000000 93.831 *			- .				-015143	1.000070	1.000000						
155 1091 CAL0CJ955 .015783 .000955 .000955 1.0CCGCC 1.E000CO 115.326 * 155 FF SUM = .7174 ROW CP TIME = 118.426 - CYLN BAY AREA CYLINDER 156 1050 CAL0705Jd .070051 .07050d .070508 1.000000 1.000000 13.492 * 156 1051 CAL0C2707 .047565 .002707 1.0C0000 1.C00000 16.032 * 156 1050 CAL439739 .436890 .439739 1.000000 1.C00000 63.143 * 156 1051 CALC16381 .287782 .016381 .016381 1.000000 1.C00000 67.669 156 1070 CAL185369 .184665 .135369 1.000000 1.C00000 93.831 *							. 048229	1.000000	1-100000	114.260					
155 FF SUM = .7174 ROW CP TIME = 118.426 - CYLN BAY AREA CYLINDER 156 1950 CAL9705Jd .970951 .07959d .979508 1.000090 1.000000 13.492 * 156 1051 CAL002707 .047565 .992707 .002797 1.000000 1.000090 16.032 * 156 1050 CAL439739 .436890 .439739 .439739 1.000000 1.000000 63.143 * 156 1051 CAL016381 .287782 .016381 .016381 1.000000 1.000000 93.831 * 156 1070 CAL185369 .184665 .135869 .185669 1.000000 1.000000 93.831 *	155					•	202025	1 000000	1.000000	115.326	*				
156 1950 CAL970534 .079951 .079504 .979508 1.000090 1.000000 13.492 * 156 1951 CAL002707 .047565 .932707 .002707 1.000000 1.000000 16.032 * 156 1950 CAL439739 .436890 .439739 .439739 1.000000 1.000000 63.143 * 156 1051 CAL016381 .287782 .016381 .016381 1.000000 1.000000 67.069 156 1070 CAL185369 .184665 .135369 .185369 1.000000 1.000000 93.831 *	155	1091	CAL.	003955	.015/63	כת פנוטט.	. 000 555	1.000000							
156 1051 CAL0C2707 .047565 .02707 .002707 1.0C0000 1.C00000 16.032 * 156 1050 CAL439739 .436890 .439739 1.00C000 1.C00000 63.143 * 156 1051 CALC16381 .287782 .016381 .016381 1.00C000 1.C00000 67.C69 156 1070 CAL185369 .184665 .135369 .185369 1.00C000 1.C00000 93.831 *	155	FF SUM	= .7174	ROW CP	TIME =	118.426		- CYLN	BAY	AREA CYLIN	IDER				
156 1051 CAL0C2707 .047565 .02707 .002707 1.0C0000 1.C00000 16.032 * 156 1050 CAL439739 .436890 .439739 1.00C000 1.C00000 63.143 * 156 1051 CALC16381 .287782 .016381 .016381 1.00C000 1.C00000 67.C69 156 1070 CAL185369 .184665 .135369 .185369 1.00C000 1.C00000 93.831 *									4 000000	17 633					
156 1051 CAL0C2707 .047565 .032707 .032797 1.009000 1.000033 18.032 15.03 1	156	1750	TAL.		* * * * * * *		• 070508	1.000000	1.000000	16 012					
156 105° CAL439739 .436890 .439739 .439739 1.000000 1.000000 67.069 156 1051 CAL016381 .287782 .016381 .016381 1.000000 1.000000 67.069 156 1070 CAL185369 .184665 .135369 .185369 1.000000 1.000000 93.831 *			ral.	.002707			.002707	1.000000	1.000000	1					
156 1051 CALC16381 .287782 .016381 .016381 1.000070 1.600000 57.009 156 1070 CAL185369 .184665 .135369 .185369 1.000000 1.000000 93.831 *			CAL.	.439739			.439739	1.000000	1.0000000	27 743	•				
156 1070 CAL185369 .184665 .135369 .185369 1.000000 1.000000 93.831			CAL.	.016381			,016 381	1.000000	1.600000		×				
			DAL.	.165369	.184665	-	.185369	1.0000000	1.00000						
		_		.367101		.007101	.007131	1.0000000	1.000000	98.749	•				

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

			•						•	
אסטב ז	NODE 3	COMPUTATION	FF(I,J)	FE(J,I)	FA(I,J)	F (1,J)	SHAD. E		CP TIME	
			W/SHAD	W/SHAD	W/SHAD	MOVSHAD	FACTOR	FACTOR	(250):	
156	1080	CAL.	.001095	.001088	.001095	.801395	1.000000	1.000000	102.629	
146	1981	CAL	.000107	.001887	.000107		1.000000		103.055	
156	1899	CAL.	.000154	100163	.000164		1.000030		104.564	
156	1191	GAL.	.009014	.000247	.000014		1.007000		104.998	
• -		- · · · -								
156	FF SUM	= .7237	BUM CB	TIME =	116.281		- CYLN	BAY	AREA CYLINO	JER
				207006	77000	300/54		4 000303	19.571	
157	1050	CAL.	.390456	387926	390456		1.000000		25,926	¥
157	1051	CAL.	.014222	.249860	.014222	.034+92			29.088	•
157	1956	CAL.	.007335	.039892	.007335	.024728			30.572	
157	1058	CAL+	.003183	•J21309	.003183			.[55186	30.795	
157	1359	CAL.	.003722	.002574	.000722	.013087	1.00.000		36.932	*
157	1250	CAL.	.011541	.011566	.011641		1.000000		37.917	
157	1061	CAL.	.000663	.011647	.000663				40.368	•
157	1970	ÇAL.•	. i t 0 3 5 4	001352	.000354		1.000000		40.732	
1 5 7	1371	CAL.	.000032	.000555	.000032		1.900300			
157	1789	CVF.	:cr0079	.003379	.303079		1.000000		42.841	
157	1081	CAL.	.900007	.003116	.010007		1.000300		42.461	
157	1090	CAL.	.000027	.000027	.000327		1.000000		43.873	
157	10 91	CAL.	.000002	• <u>000039</u>	.00002	.010375	1.000000	1.000000	44.321	
157	FF 984	= .4287	ROW CP	TIME =	45.471		- CYLN	BAY	AREA CYLING	DER
									700	
140	1953	CAL.	.000012	.000570	.000012		1.030000	-	.702	
140	1054	DAL.	.000311	.300544	.000011		1.000070		1.157	
1 40	1355	CAL.	.0CJ557	.003526	.000557		1.000000		1.647	
140	1955	CAL.	.300544	.033450	.030544		1.000000		2.142	
1.40	1957	CAL.	• 1£943u	.003437	.000430		1.000300		2.654	
1 40	1058	CAL.	.000430	.003439	.306430		1.000000		3.168	
140	1059	CAL.	.000734	.003052	.000734		1.000000		3.568	
140	1063	CAL.	.000023	.001115	.000023		1.000000		4.224	
147	1164	CAL.	.000022	.001034	.020022		1.000000		4.670	
140	1065	CAL.	.001367	.005748	.031067		1.000000		5.157	
140	1966	COL	.001055	•Q06741	.001065	•	1.000000		5.654	
140	1967	CAL.	.000324	.005533	.020824		1.000000		6.162	
149	1063	CAL.	• 600325	.005587	.000825		1.000006		6.671	
148	1069	CAL.	61469	.005355	.001409		1.000000		7.672	
140	1973	CAL .	•Drju55	.002547	.009655		1.000000		7.683	
140	1074	CAL +	.000048	.002311	.000048		1.000030		8.088	
140	1375	CAL.	.002416	•315209	.002416		1.000000		8.529	
1 40	1975	CAL.	.002438	.015238	.032498		1,000000		8.973	
140	1977	CAL+	. Pu1369	.014927	.001569		1.000000		9.437	
140	1078	CAL.	.001973	•014969	•JJ1873		1.000000		9.898 13.271	
			.003207	.013327	.303297			1.000000		

MODEL = CONTAM STEP = 1 FORM FACTOR CALCULATION LINK.

(* INDICATES NODE PATR HAS BEEN, SUBDIVIDED) :

NODE I	NODE J	COMPUTATION	FE(I,J) W/SHAD	F5(J,I) W/SHAD	F4(I,J) W/SHAD	F (I,J) WO/SHAD	SHAD. E Factor	SHAD: A FACTOR	CP TIME (SEC):	·
140	1083	CAL.	.000185	.008852	.000185	.007185	1.000000	1.000000	10.840	
140	1784	GAL.	.000137	.006527	300137	.00ū137	1.000000	1.600006	11.230	
140	1385	CAL.	.307173		.007173	.307173	1.000000	1.00000	11.639	
140	1005	CAL	.007065	.44699	.937865	.607065	1.000000	1.000000	12.047	
140	1007	CAL.	.0.5550	.044321	.005550	.005553	1.000000	1.000000	12.546	
140	1089	SAL.	005610	.044801	.005610	.00561J	1.060000	1.090000	.13.645	
140	1089	ďΔÜ.	.009626	.039999	.709626	.009626	1.000000	1.610000	13.740	
140	1097	GAL.	.001177	.056251	.001177	.0.1177	1.000000	1.600000	15.139	#
140	1194	CAL	.001174	.056120	.031174	.001174	1.000000	1.000000	16.243	•
140	1)95	CAL	124390	.154256	.024390	.024380	1.0000000	1.300000	10.980	
140	1095	raL.	023765	.150359	.023765	.023931	•993048	.993048	21.704	
140	1097	CAL.	. 418409	147659	.018459	.019727	.937253	•937253	24.773	
140	1393	CAL	.018?14	.145456	.018214	.018434	.988127	.933327	27.623	
140	15 99	CAL.	.035641	148395	075641	.035945	•991541	.991541	31.308	
140	FF SUM	= .1780	ROW CP	TIME =	31.313		+ DISC	ENC	BAY AREA	DISK
1 75	1353	CAL.	.000809	.038656	.000009	.000309	1.000000	1.000000	. 495	
135	1054	CAL.	.00036A	.017495	•03n366	.000366	1.000300	1.000000	• 751	
135	1055	DAL.	.018767	.118714	.018763	.118763	1.000000	1.033000	1.905	
135	1056	CAL .	.018825	.119350	.018825	.018325	1.000000	1.000033	3.235	
1 35	1857	CAL	.015342	.122521	.015342		1.030060		4.629	
1 75	1058	CAL·	.015342	•122 ⁵ 21	.015342		1.000000		5.993	
135	1059	CAL.	.024568	•1u 3334	•024868	.024327		.997646	7.554	
1 35	1963	Cal.	.000144	.005972	.090144	000144	1.030000	1.000000	8.033	
135	1164	GAL.	.009111	-005314	.300111	.000111	1.0000000	1,000000	8.319	
135	1965	CAL.	•00575J	.035378	.035750	.105750	1.000000	1.000000	8.635	
135	1965	CAL.	.005686	.u35973	<u>.ეე</u> 55AA	.005636	1.000000	1.00000	8.953	
175	1057	CAL .	*804+79	.035449	.004439	. 204439	1.000000	1.000000	9.292	
135	1u58	CAL.	.004473	.035723	994473	.004473	1.000000	1.000005	9.633	
135	1059	CAL.	.367633	•031926	• JU 7683	.007503	1.000000	1.000009	9.918	
135	1973	CAL.	.000347	.002224	033047		1.000040		10.443	
135	1074	CAL .	.000041	.001972	.003941	.000341	1.000000	1.000000	10.771	
1 35	. 19 ⁷⁵	CAL.	002054	•912997	•002054	.032354	1.000000	1.000070	11.137	
1.35	1376	CAL.	.002349	•612962	.002049	002349	1.000000	1.000000	11.504	
135	1377	DALL	.0 61589	.012587	.001589	001589	1.000000	1.000000	11.896	
1 75	1979	DAL.	.301591	.312710	.001591	•0ú1591	1.000000	1,000000	12.284	
135	1079	SAL.	.002723	•911317	.902723	.002/23	1.000000	1.000000	12.613	
135	1283	CAL.	.000023	.003978	-000050	.000020	1.000000	4 040 100	13.198 13.578	
135	1084	CAL.	.000019	.000913	•00u019	.060019	1.000000	1.000000	14.001	
135	1685	DALL	.00940	005946	.000948	• 35 8946	1.000300	4 0.0000	14.427	
135	10.85	CAL.	.360939	.005941	.338939	*560434	1.0000000	1 000000	14.427	
1,15	13 37	CAL.	.001726		.030725		1.003004		15.310	
135	13 88	PAL.	300727		.000727		1.339090		15.669	
1.35	11149	ርላር 🕶	·.01241	.005156	.001241	+001541	7.920000	71 00000	27,009	

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(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

			•	f. Indianica was and my been apparatoral.					
NOME I	NODE J	COMPUTATION	FE'(I+J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SHAD	F (I,J) SHAD. E HO/SHAD FACTOR			
135	-1093	CAL.	. 969011	.000513	.000011	.000011 1.000000	1.000000 16.276		
135	10 94	CAL.	.000710	.000491	.000011	.000310 1.000000			
135	1994	CAL.		.003181	.000503	.000563 1.000330			
		CAL.	.010503	.003180	.000503	.000503 1.000000			
135	1095	-	.000388	.003100	.000388	.000388 1.000000			
175	1997	CAL.	-	.003100	.030388	.000388 1.000000			
135	10 98	CAL.	.900388			.000562 1.000000			
1 रह	1099	CAL.	000862	.002752	.000662	* AD 0.205 T* 0.00000	1,0000		
135	FF SUM	= .1398	ROW CP	TIME =	18.938	+ DISC	FRONT BAY AREA DISK		
122	FF SUM	= 0.	ROW CP	TIME =	3.065	+ PARAB	VERY NOSE CONE		
123	FF SUM	= 0.	ROW CP	TIME =	3.070	+ PARAB	VERY NOSE CONE		
124	FF SUM	= 0.	ROW CP	TIME =	3.050	+ PARAB	VERY NOSE CONE		
125	FF SUM	≈ 0•	ROW CP	TIME =	3.037	+ PARAB	VERY NOSE CONE		
320	FF SUM	= 0 .	ROW CP	TIME =	1.773	+ CYLN	NOSE CYLINDER		
321	FF SUM	= 0.	ROW CP	TIME =	1.767	+ CYLN	NOSE CYLINDER		
322	FF SUM	= 0.	" ROW CP	TIME =	1.777	+ CYLN	NOSE CYLINDER		
323	FF SUM	<u> </u>	ROW CP	TIME =	1.772	+ CYLN	NOSE CYLINDER		

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

NOOF I	NONE J	COMPUTATION	FE(I,J) H/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SHAD	F (T,J) SHAD. E MO/SHAD FACTER	SHAD+ A CP TIME FACTOR (SEC)+
	FF SUM	= 0.	ROW CP	TIME =	1.799	+ CYLN	NOSE CYLINDER
325	FF SUM	= 0.	ROW CP	TIME =	1.775	+ CYLN	NOSE CYLINDER
326	FF SUM	≖ 0•	RON CP	TIME =	1.772	+ CYLN	NOSE CYLINDER
327	FF SUM	= 0.	BÚM CB	TIME =	1.762	+ CYLN	NOSE CYLINDER
328	FF SUM	= 0.	ROW CP	TIME =	2.355	+ CYLN	NOSE CYLINDER
ग29	FF SUM	= 0.	ROW CP	TIME =	2.343	+ GYLN	NOSE CYLINDER
330	FF SUM	= 0.	ROW CP	TIME =	2.344	+ CYLN	NOSE CYLINDER
¥31	FF SUM	= 0.	ROW CP	TIME =	2.341	+ CYLN	NOSE CYLINDER
372	FF SUM	= 0.	ROW OP	TIME =	2,339	+ CYLN	NOSE CYLINDER
373	FF SUM	= 0.	ROW CP	TIME =	2,331	+ CYLN	NOSE CYLINDER
734	FF SUM	= 0.	ROW CP	TIME =	2.315	+ CYLN	NOSE CYLINDER
735	FF SUM	= ŷ.	ROW DP	TIME =	2 • 31.7	+ CYLN	NOSE CYLINDER

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MODEL = CONTAN STEP = 1 FORM FACTOR CALCULATION LINK.

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLES)

			•	1.1.01.0				•
NODE I	NODE J	COMPUTATION.	FF(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I;J) W/SHAD	F (I,J) SHAD. E HO/SHAD FACTER	SHAD. A CP TIME FACTOR (SEC):	
740	FE SUM	= Û•	ROW OP	TIME =	3.052	+ PARAB	HOOD PARTIAL B	ACK
341	FF ዓህዛ	1 = 0.	ROW CP	TIME =	3.023	+ PARAS	HOOD PARTIAL 8	ACK
342	FF SUM	.= 0.	ROW CP	TIME =	3.033	+ PARAB	HOOD PARTIAL B	ACK
343	<u></u>	I = 0.	ROW CP	TIME =	3.035	+ PARAB	HOOD PARTIAL B	ACK
344	FF SUM	I = O.	POW CP	TIME =	3.030	+ PARAS	HOOD PARTIAL 8	ACK
345	FF SUM	t = 0.	ROW CP	TIME =	₹.029	+ PARA 9	HOOD PARTIAL B	ACK
746	FF SUM	· = 9.	ROW CP	TIME =	3.024	+ PARAB	HOOD PARTIAL B	ACK
. 347	FF SIL	1 = 0.	ROW OP	TIME =	3.020	+ PARAB	HOOD PARTIAL 8	ACK
748	FF 5U	1 = ".	ROW CP	TIME =	3.0 72	+ PARAB	HOOD PARTIAL B	BACK
349	EE SÜN	1 = 0.	RON CP	TIME =	3.031	PARAB	HOOD PARTIAL 6	BACK
350	FF SU!	4 = 0·	ROM CD	TIME =	3.021	+ PARAS	HOOD PARTIAL S	BACK
351	FF SU	4 = 0.	ROW CP	TIME =	3.023	+ PARAB	HOOD PARTIAL E	BACK

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NO D	r I	MODE J	C	OMPUTATION	FE(I,J)	FE(J,I) W/SHAD	FA(I,J) H/SHAD	F (I,J) SHAD. E MO/SHAQ FACTER	SHAB+ A OP TIME FACTOR (SEG):	·
	352	FF SUI	M =	0.	ROW CF	P.TIME =	3.023	+ PARAB	HOOD PARTIAL	BACK
:	353	FF SU	M =	0.	ROW CA	TIME =	3.009	+ PARAB	HOOD PARTIAL	BACK
\$	754	FF SU	4 =	0.	ROW CF	TIME =	3.026	+ PARAB	HOOD PARTIAL	BACK
<i>;</i>	355	FF SU	M =	9.	ROW CP	TIME =	3.029	+ PARAB	HOOD PARTIAL	BACK
1	360	F# 9111	4 =	٥.	ROW DE	TTME =	3.045	+ PARAB	HOOMIN	
	361	FF SU	4 =	0 •	ROW CP	TIME =	3.032	+ PARAB	HINDOW .	
;	362	FF SU	4 =	0.	ROW CF	TIME =	3.032	+ PARAB	HINDOH	
,	363	FF SU	+ =	0.	ROW OF	TIME =	3.029	+ PARAS	WINDOW	
₹	364	FF SU	4 =	ű e	ROW TIE	TIME =	3.032	+ PARAB	HOOM	
	165	FF SU	4 =	0.	 Roy CP	TTME =	3.038	+ PARAB	HINDOH	
į	366	FF 501	M =	0.	RON CE	TIME =	3.029	+ PARAB	MINDOM	·
;	367	FF SU	₩ #	0.	RON CF	P TIME =	3.034	. + PARAS	MINOOH	

8

		(211.72 0 11.2				
00E I	NOTE J COMPUTATION	N FE(I,J) FF(J,I) W/SHAD W/SHAD		(I,J) SHAO. E /SHAD FACTER	SHAD. A CP TIME FACTOR (SEC):	
368	FF 511M = 0.	ROW CP TIME =	3.039	+ PARAB	новити	
369	FF SUM = D.	POW CP TIME =	3.036	+ PARAB	HINDOM	
370	FF 984 = 0.	ROW OP TIME =	3.032	+ PARAB	HINDOM	
371	FF SUM = 1.	ROW CP TIME =	3.035	+ PARAB	HINDOW	
37 2	FF SUM = 0.	ROW CP TIME =	3.010	+ PARÁB	MINDOM	
373	FF 5UM = 0.	ROW CP TIME =	3.019	+ PARAB	HINDOH	
374	FF SUM = 0.	RON CP TIME =	3.004	+ PARAB	HINDOH	
375	FF SUM = 0.	ROW OP TIME =	3.014	+ PĀRĀB	WINDOW	
401	FF SUM = 0.	ROW CP TIME =	1.912	- RECT	BOOY BOTTOM (FR	T) 4 1
402	FF 5UM = 0.	ROW CP TIME =	1.629	- RECT	BODY ROTTON (RE	AR) 402
182	FF SUM = 8.	ROW CP TIME =	2.074	+ CYLN	OMSP00C1	
172	FF SUM = 0.	ROW CO TIME =	2.039	+ CYLN	0MSP00G2	-

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

(* INDICATES NOOE PAIR HAS BEEN SUBDIVIDED):

	•	(* INDICATE	S NODE PA	IR HAS BEEN SUBDIV	IDED) !	
NODE T	NODE J COMPUTATION	FE(I,J) FE(J,I) . W/SHAD W/SHAD	FA(I.J) W/SHAD	F (I,J) SHAD. E WO/SHAD FACTER	SHAD. A CP TIME FACTOR (SEC):	
781	FF SUM = 0.	ROW OF TIME =	2.438	- CYLN	*****Y SIDE BOOR*****	
782	FF SUM = 3.	ROM OF TIME =	64.045	+ GYLN	+Y SIDE 000R	
783	FF SUM = 0.	ROW CO TIME =	2.420	- CYLN	+Y SIDE DOOR	
784	FF SIIM = 0.	GUH CO TIME =	51.647	+ CYLN	+Y SIDE DOOR	
785	FF SUM = 0.	ROW CP TIME =	5.69ú	- CYLN	+Y SIDE DOOR	
736	FF SUM = 0.	ROW CP TIME =	14.995	+ CYLN	+Y SIOE DOOR	
787	F# <um 0.<="" =="" td=""><td>ROW OF TIME =</td><td>5.030</td><td>- CYLN</td><td>+Y SIDE DOOR</td><td></td></um>	ROW OF TIME =	5.030	- CYLN	+Y SIDE DOOR	
788	FF 5UM = 0.	ROW OP TIME =	13,741	+ CYLN	+Y SIDE 000R	
791	FF SUM = 0.	POW OP TIME =	5.871	- CALM	Y SIDE 000R	
732	ድድ <u>የሀ</u> ₩ ≃ - ሽ•	ROW OF TIME =	13.043	+ CYLN	Y SIDE DOOR	
793	FF SUM = 0.	ROW CP TIME =	4.988	- CAFN	Y SIDE DOOR	
794	FF SUM # 0.	RON CP TIME =	13.679	+ CYLN	Y SIDE DOOR	

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4			(+	INDICATE	S NODE PA	IR HAS BE	EN SUBOIA	(DED)	1	
NOBE I	NODE J	COMPUTATION			FA (T. 1)	E (Tall)	SHAD. E FACTER	SHAD+ 4	CP TIME (SEC)!	
306	FF SUM	= 0.	ROW OP	TIME =	1.546		+ RECT	800Y	SIDE (BACK-PORT)	306
						27855	.015129	.015129	6.421 *	-
311	1750	CAL .	.003488	.003701			.127643	.127643	17.159 *	
311	1051	CAL.	.004828	.193589	.004826		0.37076		32.171	
311	1060	CAL.	007401	. 107353	.007401	.085035	.087034	.031778	49.411 *	
311	1061	CAL.	.900411	.007712	.000411	.012334	.031778	*03T11B	43.444	
311	FF SUM		ROW CP		54.520		- TRAP	-Y S	SIDE FRONT TRAPOZ	010
315	ef dAW	= 0.	POW CP	TIME =	1.735		+ RECT	8004	SIDE (MIDDLE-STE	0) 315
316	FF SUM	= 0.	RON CP	TIME =	1.721	,	+ RECT	BODY	SIDE (BACK-STBD)	316
305	FF SUM	= 0 •	ROW CP	TIMF =	2.076		+ CYLN	BODY	TOP (STBO-REAR)	505
212	FF SUM	= 0.	POW CP	TIME =	2.086		+ CYLN	90DY	TOP (PORT-REAR)	212
	4000	CAL.	. 0.000.09	.000364	.000009	.000109	977657	.977657		
390	13 53	GAL.	.000137			.000341	.894928	.894928	1.806	
380	1055		000000	.000157		.0000344	.725053	.725053	2.305	
390	1357	CAL.			.000017	.000017	1.003830	1.000000	3.826	
₹80	1063	CAL.	.000017			-940377	1.000000	1.003000	4.368	
390	1065	CAL.	.003077		7 1 1 1 1 2 2 2		899137	899137	4.913	
780	1357	CAL.	.000556			000036	1.000300			
380	1073	CAL.	.0(0)36				1.000000	1.000000	6.823	
780	1075	DAL.	.003162				435784	435784	7.264	
350	1977	CAL .	1.000955						. * 7	
350	1383	CAL.	.000056						: . 	
3 80	13 45	CAL.	.000140							
380	1997	CAL.	.005377			.000292				
ያውና ማዳኮ	1393	CAL	. ექიეშნ			_	129759			
380	1095.		.000379	.003426	• • • • • • • • • • • • • • • • • • • •	.001193	.065839	•065¢39	19.386	
360	EE 2114		ROW CP	TIME =	10.872		+ TRAP	VERT	ICAL FIN (PORT)	20
-										
			. naa 166	.090158	.000006	. . 600 1 00	5 1.000333	1.0000000	1.261	
34.8年		GAL.				_ ሳባስዓን፡፡	5 .658718	. ,500708	1 1757	
ផ្ទុំក្	1.5 7 7	nn.	a 20#14	•	•		8574(75	1. 1. 1. 1. 1.	i di di	
4 · · *	Ï.	et a	. : (' ; ; '	- (***)		* * *** *				

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

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NODE I	MODE J	COMPUTATION	FE(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) M/SHAD	F (I,J) WO/SHAD	SHAD. E FACTOR	SHAD+ A Factor	CP TIME (SEC):	
700	1063	CAL.	.000007	.000213	.309007	.066310	735406	.735406	3.585	
385 385	1065	CAL.	.000023		000023	.000343	533652	.533652	4.081	
707 785	1067	CAL.	.000019		.008919	.000335	555614	.555614	4.568	
385	1373	CAL	.000011	.000323	.000011	.000J18	596508	.596608	5.774	
385	1975	CAL.	.000-41	.000162	.000041	.000083	.509510	.509510	6.224	
307 395	1077	CAL.	.000041	.000128	.200826	.000064	396536	396536	6.651	
	1043	CaL.	.000019	.090365	.300019	.000038	-501948	.501948	7.746	
385	1985	CAL.	.000019		.130057	.000167	.343543	.343543	3.140	
395		rei.	000314	.000968	.000014	.000133	104605	.104605	8.474	
335 345	10 67 1193	CAL	.00000.3	.000300	.030003	.000091	032936	.032936	9.261	•
385	FF SUY	= .0003	ROW OP	TIME =	10.055		+ TRAP	VERT	TCAL FIN (PORT-	(FT) 20
,									•	
390	1354	CAL.	.000009		.000009	.008309	.977658	.977658	1.303	
390	1755	CAL.	.100736	.000195	.000036	.000040	.894869		1.828	
390	1058	CAL.	.003324	.000167	.000024	.000034	.725030	.725030	2.328	
300	1064	CAL.	.0 C0017	.002696	.000017	.000017	1.0000000	1.003000	3.705	
391	1865	CAL.	.000377	.005419	.000077	.000377	1.000900	1.000000	4.255	
3 96	1358	DAL.	.010056	.000380	.006056	.000362	.899127	.899127	4.780	
390	1974	CAL.	.000436	.001458	.000036	.000936	1.000000	1.000000	6.039	
300	10 76	CAL.	.900162	.000880	.000162	.000162	1.000000	1.003000	6.539	•
300	1078	CAL.	.000055	.000375	.000055	.080126		435813	6.973	
390	1384	CAL.	.009u56	.002266	.000056	.0000387	.638159	•633150	a.031	
390	1036	CAL.	00140	.003761	.000143	.000397	.353151	.353151	8.425	
390	1038	CAL	.000077	.000528	.007077	.000291	.264355	.264355	8.816	
390	1094	CAL.	.000035	.001431	0.0035	.000269		.129735	9.573	•
390	1996	CAL.	.000078	.000426	.000078	.001191	.065837	•665837	9.859	
79 0	FF SUM :	e000. =	ROW CP	TIME =	10.239		- TRAP	VERT	ICAL FIN. (STBD)	20
						000306	4 000000	4 600000	1.325	
395	1054	CAL.	.0(0006	.101167	000006		1.090000 .550966	.550966	1.813	
395	1055	CAL.	• 000013		.000013	.000724	.573383			
395	1358	CAL.	.000012	.000059	.000012	.000021	735403	.735403	3.537	
395	1154	CAL.	.000007		.000007	.000310		• 533701	4.007	
395	1066		.000123	.000091	.000023	.000743		•555649	4.497	
395	1068	CAL.	.000019	.000098	.0000119	.000035		.596603		
795	1074	CAL.	.000011	.000322	.000011	.000018	•596503 •509557	•509557		
395	1376		.000041	.000162	.000041	.000000	.396564	.396564		
395	1079	CAL.	.300925	.007128	.000025	.009164 .003337				
395	1784	CAL.	.000019	.007565	.000019	.000166	343577		7.832	
3 95	1886	CAL.	.609.57 .609.14	.000068	.000057	.000130	104615	104615	8.166	
795	1389	CAL.	.000303	.0003369	.307363	000090	.032933	.032933	8.856	
795	+194	DAL.	******		* 20.1309			++36,70	2.2.7	

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NOOF I	NODE J	COMPUTATION	FF(I, J) FE(J, T) W/SHAD W/SHAD	FA(T,J) W/SHAD		SHAD. A CP TIME FACTOR (SEC):
395	FF SUM	= .0002	ROW CP TIME =	9.549	- TRAP	VERTICAL FIN (STBD-AFT) 20
705	FF SUM	= 0.	ROW OP TIME =	2 • 36 2	+ nisc	MOST FORWARD EVAPORATOR
790	FF SUM	= 0.	RCH CP TIME =	10.778	- pisc	SUPER ENGINS (OMS LOCAT
701	FF SUM	= 0.	ROW CP TIME =	2.304	+ DISC	SUPER ENGINS (OMS LOCAT
702	FF SUM	= 0.	ROW OF TIME =	10.342	- DISC	SUPER ENGINS (OMS LOCAT
703	FF SUM	= 0.	ROW CP TIME =	2.265	+ DISC	SUPER ENGINS (OHS LOCAT
24	FF SIIH	= 0.	ROW CP TIME =	2.364	- DISC	BACK RCSLOOKING +/- V.(
25	Fe SUM	= .3000	ROW CP TIME =	9.813	+ DISC	BACK RCSLODKING +/- Y.(
18	FF SUM	= 0.	ROW PP TIME =	2.338	- oisc	FRONT RCSLOOKING +/-Y AT
19	FF SUM	= 0.	ROW CP TIME =	5.582	+ oisc	FRONT RCSLOOKING +/-Y AT
26	FF SUM	= 0.	ROW CP TIME =	9.766	- DISC	BACK RCS LOOKING +/- Z7/
27	FF SUM	= 0.	POW CP TIME =	2.368	+ OISC	BACK RCS LOOKING +/+ Z7/

-Y PALLETI OUTSIDE STRIP SL3

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED):

1005 T	NODE J	COMPUTATIO	ON FE(I,J) W/SHAD	FE(J,I) W/SHAO	FA(I,J) H/SHAD	F (I,J) HO/SHAD	SHAD. E FACTER	SHAD. A FACTOR	(SEC) \$			
16	F# SUM	= 0	RON CP	TIME =	8.125		- orsc	MI	DOLE EVAP.	LOOKING	+/-	٧.
17	FF SUM	= 0.	ROW CP	TIME =	2.370		+ DISC	MI	DOLE EVAP.	LDOKING	+/-	٧.
		241		600227	.000056		1.000000	1.000000	2.938			•
399	1053	CAL.	.000056		.000056	0000056	1.000000	1.000000	5.831			
399	1054	CAL.	.000756 .003274		.030274	- 000374	1.000030	1.000000	7.064			
399	1355	CAL.		.000240	.0002,4	.000268	1.000000	1.000000	8.371			
779	1055	CAL.	.000268		.000289	_000209	1.000000	1.000000	9.650			
399	10 57	DAL.	.000289	.000294	.000289		1.000000		11.019			
399	1059	CAL.	.000289		.106284		1.800000		11.978			
3 30	10 59	CAL	.000684		.000083	7 00000 U	1.000000	1.000000	14.787			
399	1363	CAL.	E ecena.			5 6 6 9 9 9	1.003000	1.003403	17.564			
399	1364	CAL.	.10083		.000083	000000	1.000000	1.600000	18.759	_		
399	1065	DAL.	.000406	.909327	.030436	000400	1.000000	1 000000	20.062			
399	1966	Cal.	.400+06	.000327	.000486	20400	1.003030	1.030000	21.276			
339	1067	CAL.	• BC ú 4 ú 6	.000411	.000466	030400	1.000000	4 8203065	22.551			
3 9 9	1058	CAL.	.000406	.000411	.000436	000170	1.000000	4.060868	23.464			
399	1369	CAL.	.0£0938			100427	1.000000	1.00000	25.947			
390	10 73	ral.	.000127		.000127	400427	210764	24 0 75 6	27.531			
399	1074	CAL.	.900327		.030327	000127	1.030030	4 000000	28.580			
730	1075	CAL.	.003612		.000612	000012	.289577	200577	29.339			
399	1076	CAL.	.000177		.000177	• 000015	1 209211	4 6 6 6 7 7 7 7	30.361			
379	1077	CAL.	.003549		.006548		1.030000		31.309			
304	1378	CAL.	.008351		.000351	.000548		.640349	32.108	•		
ઉત્તવ	1079	<u>ኮለ</u> ፎ.	.001212	.998640	.001212	.001212	1.000000	1.400000	34.315			
3 9 9	1ባጸኛ	CAL.	.000185		.000185	.080157	1.000000	1.000000	36.505			
799	1085	CAL.	• 0 6 0 9 1 3		.000813	• 000013	1.000000	1.000000	38.026			
399	1387	CAL.	,grú526	.000533		• 000026	4.000000	1.000000	39.313			
399	1039	CAL.	.000999		.000999	- 080 194	1.000000	4 000000	40.529			
399	1393	CAL.	.0CJ091		.000091	.900391	1.000000	4 000000	41.652			
340	1995	CAL .	.000202		.000202	.000202	1.000000	1.000000	42.233			
399	1097	CAL.	.003702	.300392	•000035	• 40.0012	T.000003					
399	FF SUM	= .0105	ROW CP	TIME =	42.534		+ RECT	VERT.	FIN LDG.	EDGE	2	
1050	FF SUM	= .9430	enw ce	TIME =	2.340		+ CYLN	PALL	ET1 BOTTO	1 CYLINDE	R X=	: 6 [,]

* RECT

ROW OF TIME = - 1.380

.3885

1051

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				(-	INDICATE	S NOOT PA	TK HAS OF		1020.	
NOD	ξĪ	NOD= J C	COMPUTATION	FE(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SHAD	F (I,J) WO/SHAD	SHAO. E FACTER	SHAD• A FACTOR	CP TIME (SEC):
1	1952	FF SUM =	.7780	ROW CP	TIME =	1.352		← RECT	+ Y	PALLET'S OUTSIDE STRIP SL3
. 1	1053	FF SUM =	0408	ROW CP	TIME =	1.695		+ RECT	_Y P	ALLET1 TOP STRIP X=645.2 T
1	1054	FF SUM :	= .fi196	ROW CP	TIME =	1.649		+ RECT	+4	PALLET1 TOP STRIP ,X= 645.
	1055	1956	DAL.	.069755	•059900	.069755	.069755	1.000000	1.000000	. 967
	1055	1357	DAL.	015740	019867	015740	.015740	1.000000	1.000000	1.190
	1155	1858	CAL.	055797	.071429	.055797	.055797	1.000000	1.000000	1.573
	1055	1059	CAL.	088759	.058292	.088759	.088759	1.000000	1.000000	2.394 /
	1055	1365	CAL.	.032622	.632622	.032622	.032622	1.000000	1.000300	2.856
_	1055	1067	CAL.	.001545	.001950	.891545	.001545	1.030000	1.690000	3.111
	1055	1768	CAL.	.122966	.028986	•J22966	.022366	1.000000	1.000340	3.385
	1055	1769	DAL.	023828	.015649	. 123828	.023928	1.600000	1.000000	3.605
	1055	1476	CAL.	.016489	.n3548J	.005480	•906+80	1.000000	1.000000	4.105
	10 55	197*	CAL.	. 163543	.000054	.000043	. ŋga 343	1.000000	1.000000	4.410
	115	1379	CAL.	.003932	.004837	•003832	.903932	1.000000	1.000000	4.713
	1155	1379.	CAL	.0i2172	.001426	.002172	.002172	1.000035	1.000000	4.973
	1055	1095	CAL.	.061504	.001604	.001504	.001634	1.000000	1.000000	5.513
	1055	1387	CAL	.000007	.003009	•000007	.0000007	1.000000	1.660088	5,854
	10 55	1386	CAL.	.309365	.001118	.030505	.000395	1.000000	1.039300	6.234
	1055	1189	CAL.	.000427	.300281	.037427	•000427	1.000000	1.00000	6.491
	1955	10 45	CAL.	.000545	.ეეპ545	+000545	.000545	1.030000	1.609009	7.067
	1855	1397	nat.	.000302	.000003		.00002	1.030000	1.600000	7.423
	1055	1398	CAL	.0(0293	•90ú370	.000293	.000293	1.000000	1,000000	7.801
	1955		CAL.	.000134	.001088	.000134	.000134	1.030330	1.636906	8.099
	1055	FF SUM	= .5017	ROW CP	TIME =	8.104		+ RECT	. -Y	INSIDE TOP PANNEL1 ,X=645.
		4455	CAL.	055800	.179286	.055800	. 955024	1.000000	1.000000	.624
	1056		CAL.	.015279		• -	.016279	1.000030	. 1.000u00	1 .848
	1056		CAL.	.089597		_	.689597	1.000000	1.00000	1.675
	1756		DAL.	.032639	•		. 132539	1.000000	1.0000000	2.110
	1056 1056		CAL	.023023			.023023	1.000000	1.000000	2 • 407
	1056		CAL.	.001564			.001564	1.000000	1.690000	2.662
	1956 1956		CVF.	023344			. 323944	1.600000	1.000000	j 2.884
			CAL.	JL6465			. 986465	1.000000	1.000000	3,358
	1056 1056		CAL.	.003827			.003827	1.000500	1.000000	3.690
	1056		DAL.	.91004?			.000142	1.083930	1.000000	3,985
	1056		201	912165			. 162156	. 1. ugu890	. 1.0753 <i>0</i> 3	i 4.248
	1956	-	C A	801597			.301577	1.080000	, 1. L05031	L 4.771
		11 7	A A P C A	aras t				Barriet Con	1 1 1 1 .	er 1 er
	1		4 1 4	1						•

MODEL = CONTAM STEP = 1
FORM FACTOR CALCULATION LINK.

(* INDICATES NODE PAIR HAS BEEN SUBDIVIDED) :

NODE I	NODE J	COMPUTATION	FE(I,J) W/SHAD		FA(I,J) H/SHAD	F (I,J)		SHAD. A	CP TIME (SEC) #	
	44.60	544	000007	000000	020007	000107	1.000005	1 000000	5.494	
10 56	13 88	CAL.	.000007		900007		1.000000			
1056	10 49	GAL.	000423		.000423		1.000000		6.357	
1056	1395	nal.	.000541		.000541					
1056	1097	CAL .	.000291	.000365	.000291		1.00000			
1056	1093	ሶልኒ•	•000005	.000002	.000012		1.000000		7.126	•
1756	1399	CAL.	.000132	.000036	.000132	.000132	1.000000	1.009000	7,429	
1056	FF SHM	= .4933	ROW CP	TIME =	7.435	;	+ RECT	+Y	INSIDE TOP	PANNEL1,X=645.2
1057	1058	CAL.	.061000	.061000	.061000	-061300	1.003000	1.000000	.338	
1057	1359	CAL.	.093258	.048528	.093268		1.000000			
	1955	CAL.	.001950	.001545	.001950		1.040000		1.770	
1957	-		.028938	.022956	.028938		1.000000			
1057	1065	CAL.	119517	.019007	•019507		1.000000		2.356	
1057	1068	CAL.		.u95272	10132		1.000000	-	8.545	
1057	1369	CAL.	.010132	.000943	.000054		1.000000		9.048	
1057	1375	CAL.	.000054				1.000000		_	
1057	1076	C 1L .	.904837	1003832	.004837		1.000000		9.688	
1057	1075	CAL.	.0°22×1	.0022₹1	.012231				9.965	
1057	1979	CVT.	.000435	.005211	.336405		1.000000		10.500	
1957	1385	CAL.	.003009	.0000007	.000009		1.000000			
1057	1035	CAL.	.001118	.003885	.0u1118		1.000000		10.852 11.251	
1157	1088	C^L.	.003457	.009457	.098457		1.000000			
1957	1049	^AL.	.900070	.001035	.000070		1.000300			
1057	1795	CAL.	.000003	.000002	.000103		1.000000		12.124	
1157	1396	CAL.	.300370	.000293	.030370		1.000000			
1057	1098	CAL.	.00J145	.030145	.000145		1.300800			
1057	1099	CALL	.000021	.000011	.300021	.001121	1.000000	1.003000	13.255	
1057	FF SIM	4759	ROW CP	TIME -=	13.261		+ RECT	-Y	INSIDE BOT	TOM PANNEL1, X=5
1058	1853	GAL.	.093268	.043528	.393268	.093266	1.000000	1.000000	• 991	
1058	1065	CAL.	028988	.022966	.028988	.028988	1.000000	1.000000	1.469	
1058	1356	CAL.	.001950	.001545	.001950	.001350	1.6000000	1.000000	1.721	
1058	1367	CAL.	.019007	.019607	.119507	.019607	1.000000	1.000000	2.006	
1058	1969	CAL	.019132	.005272	.010132	.010132	1.630000	1.000000	8.280	*
1958	1075	CAL.	.004837	.003832	.004837	.004337	1.000000	1.000000	8.790	
1058	1075	CAL.	000054	.000043	000054		1.000000		9.084	
1058	1377		.002231	002231	.002231	.0u2231	1.000000	1.003000	9.393	
1358	1379	CAL	.003405	.030211	.300+05	.000+05	1.000000	1.0000000	9.709	
1059	1035	CAL.	.001118	.000885	.001118		1.000000		10.271	
1158	10.85	CAL.	.000009	.000007	.000009		1.000000		10.603	
1058	1987	CAL.	.009457	103457	331457		1.000000		10.974	
1458	1089	CAL	.000070	.003036	000073		1.000000		11.334	
1058	1095	CAL	000370	.000293	400370		1.000000		11.929	
: 511	1000		· •		•					

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(* INDICATES MODE PAIR HAS DEEN SUBDIVIDED) :

NOOF J	NO 05 J	COMPUTATION	FE(I,J)	FF(J,I) W/SHAD	FA(I.J) W/SHAD	F (I,J) WO/SHAD	SHAD. E	SHAD+ A Factor	CP TIME (SEC):
1058	10 96	ra	.000003	.000012	.000003	.000103	1.000030	1.632006	12.282
1058	10 97	CAL.	.003145	.003145	000145	.060145	1.000060	1.003000	12.703
1958	10 99	CAL.	00321	.003011	.000021	.060321	1.000000	1.000000	13.067
10 58	FF SUM	·	ROW OP	TIME =	13.072		+ RECT	+ Y .	INSIDE BOTTOM PANNEL1, X 64
		•							
1059	1 65	CAL.	. u 156 + 9	.627328	015649	.015649	1.600000	1.009000	. 449
1059	1366	CAL.	015549	.023828	.015649	.015649	1.000000	1.000000	.673
10 = 9	1367	CAL.	205272	.010132	.005272	.005272	1.000030	1.030030	6.798 ₹
10-9	1369	CAL.	0.05272	.013132	.005272	.105272	1.000000	1.0000000	12.919 #
	1975	CAL	001426	.302172	001426	.001426	1.050906	1.000000	13.407
1759			0.1+26	.002172	001426	-361+26	1.000000	1.000600	13.656
1059	1075			.000475	.000211	.000211	1.000000	1.000000	13.911
1059	1977	CAL.	.000211	.037495	.000211	.000211	1.000000	1.000000	14.167
1059	1070		0.00211		000281	0000011	1.000000	1.010000	- · · · · ·
1059	1985	CAL.	.302281	.900427		000221	1.600300	1.000000	
1759	1146	OALL	.000281	.000427	165366.	0000131	1.003333	1 000000	
1057	1087	ral.	.001336	.000070	.000036	. " 86 93 6	1.000000	4 00 1000	
1059	10 89	ኮልዚ •	. 10 Ju 35	.000070	.050036	• 030055	1.000000	1.033000	
1059	1095	CAL.	.003188	.00^134	.37098	.000188	1.000300	1.097900	
1059	1495	CAL.	.000588	.CCu134	.00000	.000335	1.000000	1.463030	10.392
1059	1097	CAL .	.0~5311	.0000021	.020011	.000011	1.030000	1.000000	16.706
1059	1099	CAL .	.070711	.000021	.0J0011	.000311	1.009070	1.005000	17.019
1159	PF SUM	= .7734	ROW CP	ilms =	17.058		• PECT	еот	TOM PANNEL 1 X#645.2 10759
							CHIM	O A I	LET2 BOTTOM CYLINDER X= 75
1360	FF SUM	- •9294	BUM Co	TIME =	1.876		+ CYLN	F#L	CETE SUTTON GREENOUN Nº 12
1061	FF SUM	= .3106	POW CP	TIME =	1.150	ı	+ RECT	- Y	PALLET2 OUTSIDE STRIP SL3
1062	EF SUM	= .7957	PON CP	TTME =	1.083		+ RECT	•4	PALLET2 OUTSIDE STRIP SL3
1063	FF SUM	= .0108	ROW CP	TIME =	1.340	•	+ RECT	-¥ P	ALLET? TOP STPIP X=759.2 T

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(* INDICATES NODE PAIR HAS BEEN SUBSTITUTED) (

אסטי ז	HODE J	COMPUTATION	FF(I+J)	FE(J,I) W/SHAD	FA(I.J) W/SHAD	F (I,J) ₩O/SHAD		SHAD. A FACTOR	CP TIME	
1054	FF SUM	= .0091	OOM CP	TIMF =	1.317		+ PECT	+ Y	PALLET2 TOP	STRIP ,X= 759.
1065	1105	CAL .	.059754	. 69758	.069758	.069758	1.000029	1.000000	1.317	
1165	1967	CAL	.015740	.013867	.315743	015740	1.000000	1.000030	1.575	
1765	1358	ra.	.055797	.373429	.055797	•355797	1.0000000	1.000000	2.038	
1065	1969	CAL .	.088759	. 358292	•388759	*	1.0000000		3.115	
1065	1076	CAL.	.032622	.072522	•133655		1.000003		3.600	
1065	1077	CAL.	. 901545	.001990	.001545		1.300000	•	3.900	
1365	1 j 7 3	CAL.	• 02 2965	.028988	•422966		1.090500		4,193	
1765	1079	CAL.	65EES0.	•01564 9	.323825		1.000000		4.435	
1065	1095	CAL.	.006+#3	.005443	.006433		1.030030		4.953	
1065	13 37	Cat.	.010)43	.533654			1.009300		5.200	
1755	1984	CAL.	.003832	.304837	.003832	.003332	1.030034	1.000000	5.620	
1365	1189	CAL.	.002172	.001426			1.990000		5.903	
1065	1095	CAL.	.061504	.001604			1.000030		6.453	
1965	1197	SAL.	.503107	•003339	.900007	-	1.000000		6.803	
1155	1093	DAL.	• 900 405	.001118	•130485	-	1.003360		7.155	
1965	1099	ral.	.0ru427	.^37281	•0°0427	.500427	1.000000	1.004368	7.454	
1055	FF SUM	= ,454 5	bDM Cb	TIME =	7.459		+ RECT	- v	INSIDE TOP	PANNEL 2. X=759. 2
1965	1347	CAL.	.055797	070429	。055 ⁷ 97	.ū55797	1.030000	1.000000	.481	
1066	1750	CAL.	.915740	.019867	.015740	.015740	1.00,000	1.000000	.741	
1065	1369	CAL	.083759	.059292	.408759	.086759	1.000000	1.000000	1.840	
1166	1075	CAL.	.072622	.032622	.032022	.032622	1.030300	1.000000	2.305	•
1066	1177	DAL	.922366	.128988	.022966	• J Z Z 36 F	1.002300	1.000300	2.531	
1055	1578	CAL.	.001545	.031950	.001545	.001545	1.000330	1.003036	2.515	,
1155	1)79	SAL.	• C23å28	.015649	.027928		1.600.00		3.162	
1066	1035	Cāt.	.665437	•035480	.Juñ4d0		1.000000		3.665	
1006	1 u 97	rat.	<u>. 003432</u>	.Gu4a37	.093932		1.000000		4.037	
1766	1086	CAL.	.3[0347	.000154	•38Cu+3	•	1.00000u		4.360	
1065	1933	ral.	.002172	.001426	.002172		1.000000		4.645	
1046	1395	CAL	• 3 C 1 S ^ 4	.031004	.001604		1.000000		5.177	
1066	1097	CAL		.001118	.JJU855		1.000000		5.574	
1356	1398	∾ለ∟.	.200037	•00103	•001007		1.000000		5.920	
1006	1] 79	CAL.	•JE9→27	.000281	•39 0 →27	.003427	1.0000)0	1.000000	6.221	
1046	EE SUM	= .4528	ROW FP	7145 =	6.227		• RECT	*Y :	INSIDE TOP	PANNEL2, x=759.2
1967	1169	CAL.	.761307	.051093	.061000	.061934	1.033030	1.600056	.401	
9.67	1363	DAL.	. 193269	.043528	.113268	.093208	1.000000	1.436000	1.689	
1967	1 75	CAL.	161950	.031545	111950	.001350	1.000000	1.000000	2.193	
1057	1376	CAI.	. 223983	.022366	.323948		1.033350		2.491	
137	1074	C ft	• 019 . P.Z	.019057	. 11 40 . 7	.113507	1.690000	1.4403300	5 1 6 15	
, ,	1					. 1 . 1	1	1 .		•

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·			•	THOTONIC	G 1100C 11				-	1	
NONE I	HONE J	COMPUTATION.	FE(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) H/SHAD	F (I,J) WO/SH40	SHÁD. E Factor	SHAD+ A FACTOR	CP TIME (SEC):		
						000354	1.000000	4 000000	10.005		
1067	1985	CAL.	.000054		.000054	0000554	1.000000	4 000000	10.361		
1967	10.65	CAL	.064537		.004837		1.000000		10.740		
1967	10.88	CaL.	.002231		.00?231		1.000000		11.042		
1367	1289	CAL.	.000405		.000435	.000402	1.000000	4 600330	11.605		
1967	1895	CAL.	.000009		.500009	- 6666369	1.000000	1.000000	11.979		
1067	1795	CAL.	.001118		.001118	.001110	1.000000	4 000000	12.387		
1967	1098	CAL.	000+57		.000457	.000+57	1 - 0 0 0 0 0 0	1.000000	12.698		
1067	1399	CAL.	.900070	•011036	.000070	•000076	1.000000				
1067	FF SUM	= .4206	ROW OP	TIME =	12.704		+ RECT	-Y	INSIDE BOTTO	1 PANNEL2,	X=7
					•						,
1068	1969	CAL.	.093268	.048528	.093268	.093268	1.000000	1.000000	1.304		
1368	13.75	CAL.	.025988	•022966	.028988	•028338	1.840000	1.000000	1.812		
1058	1376	CAL.	.001950	.001545	.031950	.001950	1.000000	1.000000	2.102		
1068	1977	CAL.	.019607	.019607	.0196J7	.819607	1.039030	1.000000	2.414	_	
1068	1079	DAL.	.010132		010132	.010132	1.000000	1.000000	9.090	•	
1068	1035	CAL .	.004837		.004837	.004937	1.000000	1.000000	9.634		
1768	1946	CAL.	.org354		.000054	.600354	1.000330	1.003000	9.960		
1958	1337	CAL.	.002231		.302231	.002231	1.000000	1.000000	10.310		
1668	1989	CAL.	.000405		•000405	.000+15	1.000000	1.000000	10.654		
1058	1995	CAL.	.001118		.301118	.0G1118	1.000000	1.000000	11.242	•	
1068	1295	CAL.	.00009	.000007	.000009	.000009	1.000000	1.003000	11.595		
1068	1197	DAL.	.003457		.010457	.000457	1.006930	1.000000	11.977	•	
1158	1099	CAL.	.000070		.300070	.000070	1.030000	1.000000	12.326		
1058	FF SIIM	= .4265	ROW CP	TIME =	12.334		+ RECT	+Y	INSIDE BOTTO	4 PANNELZ,	x 75
	4 75	CAL .		.023626	-015669	. 415649	1.000000	1.000000	. 467		,
1059	175		.015649		015649	-015649	1.600000	1.003000			
1069	1976	CAL. CAL.	.005272		.005272	.005272	1.000330	1.000000		•	
1,69	1077			.010132		.005272	1.000000	1.000000		•	
1069	1078	CAL.	.001426		-	.001426	1.000904	1.000000			
1159	10.85	CAL.	.001426			.001426	1.000000	1.000000			-
1069	1935	CAL.	.001420				1.000030	1.090000	14.796		
1769	1357	CAL .	00214	.000485		-000211	1.000000	1.0000			
1069	1088	CAL.	000211	0.00402		. 000211	1.000000	1.000000			
1069	1095	CAL.		.000427		.000231	1.000000	1.0000000	15.934		
1169	1395	CAL.	.000281			.000.01	1.000000	1.030000			
1069	1397		.000036		.000036	.000030	1.000000	1.0000000	16.573		
1369	1398	CAL .	.000036			*****					_
1759	FF 5114	= ,3422	POW CP	TIME =	16.611		+ RECT	PAL	LET2 BOTTOM,	X= 759.2 T	0 87

MODEL = CONTAM STEP = 1 FORM FACTOR CALCULATION LIME.

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

			•	±.,,,,,,,	•				1	
N00F I	יח ל פתסע	MOITATUPMO	FE(I,J) W/SHAD	FE(J,I) W/SHAO	FA(I,J) W/SHAD	F (I,J) WO/SHAD	SHAD. E FACTER	SHAD• A FACTOR	CP TIME (SEC)!	
1070	FF SUM =	.9133	ROW CP	TIME =	1.410	٠	+ CYLN	PALL	ET3 BOTTOM CYLI	NDER X= 87
1671	FF SUM =	.3029	ROW OP	TIME =	. 809		+ RECT	. -∀ P	ALLET1 OUTSIDE	STRIP SL2
1972	FF SUM =	.7435	ROW CP	TIME =	.787		+ RECT	+Y	PALLET1 OUTSIDE	STRIP SL2
1973	FF SUM =	.0104	ROW CP	TIME =	•976		+ RECT	-Y PA	LLET3 TOP STRIP	x=873.2 T
1074	FF SUM =	.009?	ROW Cº	TIME =	•931		+ RECT	+Y P	ALLETS TOP STRI	(P ,X= 873.
1ú 75	1975	ral.	.069758	.069758	.369758	.069758	1.000000	1.000000	1.345 1.598	•
1075	1977	CAL	.015740	.119857	.015740				2.066	
1075	1078	CAL.	055797	.070429	.055797		1.000000		3.188	
1075	1079	CAL.	.088759	.058292	.088759		1.500000		3.690	
. 1075	13.95	CAL.	.032622	.032622	.032622		1.0000000		3.988	
1075	10 87	CAL.	.001545	.01950	.011545		1.000000		4.293	
1975	1388	CAL.	.022366	.028938	.022966		1.000000		4.548	
1u 75	1469	DAL.	.023828	.015649	.023828		1.0000000		5.069	
1075	1995	CAL	.106480	.005480	.006480			1.000000	5.383	
1975	1997	CAL.	.000043	.000054	.000043		1.000000		5.713	
10 75	1098	CAL.	.003832	004837	.003832			1.000000	5.987	•
1375	13 9	SAL.	.06217?	.001426	.302172	• 0021, 2	1.000000	1.000000	34331	
1075	FF SUM =	.4504	ROW CP	TIME =	5 • 992		+ RECT	-Y I	INSIDE TOP PANNE	(L3 ,X=873.
1075	1.077	CAL.	~.055797		.055797	. 155797	1.000000	1.030000	.488 .744	
1075	1079	CAL.	.015740	.19867	.015740	.012/40	1.000000	1.000000 1.000000	1.877	
1076	1979	CAL .	.088759	.058292	.088759	077672	T+007000	1.000000	2.348	
1076	1085	CAL.	.032622	.032622	.032522	. U32026	1.003003	1.000000	2.690	
1076	1387	CAL.	.022966	.123988	.022966	004545	4 011003	1.000000	2.983	
13 76	13 48	. CAL.	.001545	.001950	.091545	27772	1 000000	1.000000	3.239	
1976	1989	CAL.	.023328	.015649	.023828	023320	1.000000	1.000000	3.736	
1376	1095	CAL.	.ú(548)	.006480	.006480	.003232	1.000000	1.000000	4.096	
1076	1297	CAL.	.003332	.034837	.003832 .000043		1.000000		4.402	. <u> </u>
1075	1394	CAL	.563543		.002172		1.000000		4.676	
1076	1199	CAL.	.002172	•001.50	# O O C I I C		-,,-			

N	ODE I	ע פרוטא	COMPUTATION	FE(I,J) W/SHAD	-		F (I,J) HO/SHAD		SHAD+ A Factor	CP TIME (SEC):	•
	1075	FF SUM =	.4500	RON CP	TIME =	4.701		+ RECT	+Y	INSIDE TOP	PANNEL3, X=873.2
	1077	1078	CAL.	.061000	.061000	.ü61000	. 661000	1.000000	1.000000	. 425	
	1077	1079	CAL.	193265	.043528	.093268		1.000000			
	1077	1335	CAL.	001950	001545	.001950		1.000000			
	4077	1285	CAL.	.028988	.022966	.028988		1.000000			
	10 77	1988	CA.	.019507	.019607	019607		1.000300			
	1377	1089	CAL .	.010132		.010132		1.000000			*
	1377	1195	CAL.	.000054	.000043	.000054		1.630000			
-	13.77	1495	OAL.	.004637	.003632	.034337		1.000000			
	1077	1799	CAL.	.002271	.02231	.092231		1.007300			
	1077	10 93	CAL.	.069405	.009211	.000405		1.600000			
	1077	FF SUM =	.4140	ROW CP	TIME =	11.305		+ RECT	-1	INSIDE BOT	TOM PANNEL3, X=B
	1076	1079	CAL.	.097268	.048529	.093268	. 1197268	1.000933	1.00000	1.431	
	1078	1305	CAL.	.1128988	.022966	.028988		1.000000			
	1978	1086	CAL.	•001950	.0ú1545	.001950		1.0000000			
	1978	1287	CAL .	.019607		.019607		1.000000		2.570	
	1078	15.49	CAL.	.019132	.305272	.310132		1.000000			•
	1078	1195	CAL.	.004837	.003832	.094837	•	1.000000			,
	1779	1396	CAL.	000054	.003043	.000054		1.003000			
	1378		rat.	.002231	.002231	002231		1.000000	_ +		
	19.78	1099	CAL.	•001405	.000211	.000405		1.000000		10.889	
	1978	FF SUM ≖	.4138	ROW CP	TIME =	10.895		+ RECT	+4	INSIBE BOT	TOM PANNEL3,X 87
	1379	1035	CAL.	•U15649	.023328	.015649	.015640	1.003000	1.600000	•475	
	10 79	19 06	CAL	.015649	.023525	.015649		1.000000		.726	
	1179	13 37	GAL.	.015272		2.005272		1.000000		7.561	•
	1079	1289		.005272	.010132	025272		1.000000		14.271	•
	1979	1195	CAL	001426	.002172	.001426		1.000000		14.791	
	1079	1096		.0°1426	.002172	001426		1.000000			
	1079	1397	CAL.	.000211	.000405	.000211		1.000000		15.354	•
	1079	1099	CAL.	.000211	.000405	.000211	.000211	1.000000	1.000030	15.638	
	1079	EE 200 =	. 7345	ROW CP	TIME =	15.678	٠	• REGT	• • • B	OTTOM PANNI	EL3 ,X=873.2 TO
	10 90	FF SUM =	.9210	ROW CP	TIME =	•916		+ CYLN	Pa li	LET4 80110!	4 CYLINDER X= 98

MODEL = CONTAM STEP = 1 FORM FACTOR CALCULATION LINK.

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

			43	INDICATÉ	S NODE PA	IR HAS BE	EN SUBDIV	IDEDI		
NODE I	NODE 3 CO	MPUTATION	FE(I.J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SHAD	F (I,J)		SHAD• A Factor	CP TIME (SEC):	
1981	FF SUM =	+3004	ROW CP	TTHE =	•548		+ RECT	- Y	PALLET4 OUT	SIDE STRIP SL3
1087	FF SUM =	.7774	ROW CP	TIME =	•502		+ RECT	+1	PALLET4 OU	TSIDE STRIP SL3
1983	FF SUM =	•0550	ROW CP	TIME =,	.605	•	+ RECT	-Y P	ALLET4 TOP	STRIP X=987.2 T
1084	FF <um =<="" td=""><td>.0105</td><td>RUM CP</td><td>TIME =</td><td>•563</td><td></td><td>+ RECT</td><td>+4</td><td>PALLET4 TOP</td><td>STRIP , X= 987.</td></um>	.0105	RUM CP	TIME =	•563		+ RECT	+4	PALLET4 TOP	STRIP , X= 987.
10 85 10 85 10 85 10 85 10 85 10 85	1985 1087 1983 1949 1795 1J97 1J98	CAL. CAL. CAL. CAL. CAL.	.069758 .015740 .055797 .083759 .032622 .001545	.070429 .658292 .032622 .001950		.015740 .055797 .088759 .032622 .001545	1.098080 1.000900 1.000900 1.009000 1.009000	1.600000 1.600000 1.600000 1.600000	2.178 3.395 3.896 4.190 4.484	
1085	1099 FF SUM =	CAL.	.023928 ROW CP	.015649 TIME =	.023828 4.731		1.000J00 + RECT			PANNEL 4 . X=987 . 2
10 9 6 10 8 6 10 8 6 17 8 6 17 3 5, 10 8 6	1087 1088 1089 1095 1097	CAL. CAL. CAL. CAL. CAL. CAL.	.055797 .015740 .088759 .032966 .001545		.088759 .032622 .022966 .001545	.015740 .088759 .032622 .022966	1.030000 1.000000 1.000000 1.000000 1.000000 1.000000	1.000000 1.000000 1.000000 1.000000	.777 1.976 2.449 2.772 3.059	·
1036	1099 FF SUM =	.4667								PANNEL 4 , X=987 . 2
1787 1097 1747 1087 1087	1388 1399 1095 1395 1395	CAL. CAL. CAL.	.361000 .093269 .001959 .028986	.119607		.093268 .001950 .028988 .0196J7	1.000000 1.000000 1.00000 1.00000 1.00000	1.000000 1.000000 1.000000	1.876 2.363 2.664 3.638	•
1087	1039	CAL.	.010132	1145	700		+ R-0T			TOM PANNEL4. X=9

, eT

NODE I	C BOOM	COMPUTATION	FE(I,J) W/SHAD	FE(J,I) GAHZ\W	FA(I,J) W/SHAD	F (I,J) WO/SHAD	SHAD. E FACTOR		CP TIME (SEC):	
1988	1089	CAL.	.093268	.048528	.093268	. û93268	1.000000	1.000000	1.432	
1988	1095	GAL	.02893A	022966	.028988		1.000000		1.976	
1798	1096	CAL.	.001956	001545	.001950		1.000000		2.254	
10 03	1097	CAL.	.019607	-019507	.019607		1.000000		2.568	
1088	1939	CAL.	.019132	.005272	.010132		1.000000		9.303	*
1068	FF SU4	= •4357	, ROW CP	TIME =	9.309		+ RECT	+4	INSIDE BOTT	OM PANNEL4, X 98
10 69	1095	CAL.	.015649	.023828	.015649	.015649	1.000000	1.000000	. 464	
1089	1095	CAL.	.015549	023828	015649		1.000300		.701	
1089	1197	CAL.	.005272	.010132	.005272		1.000000		7.490	
1789	1098	CAL .	.005272	.010132	.105272		1.000000		14.259	•
1089	F'F SUM	± .3589	ROW CP	TIME =	14.299		+ RECT	PAL	LET4 BOTTOM	1,X= 987.2 TO 11
1090	FF 5UM	= .9116	ROW CP	TIME =	•437		+ CYLN	PAL	LETS BOTTON	I CYLINDER X= 11
1091	FF SUM	= ,3096	ROW CP	TIME =	.244		+ RECT	- ¥	PALLETS OUT	SIDE STRIP
10 92	FF SUM	= .8012	ROW CP	TIME =	•227.		+ RECT	, +Y	PALLETS OU	JTSIDE STRIP
1093	EE GIIM	= .0946	ROW CP	TIME =	.236		+ RECT	-∀ P	ALLETS TOP	STRIP X=1101.2
1094	FF SUM	= .0939	ROW CP	TIME =	.199		+ RECT	+4	PALLETS TOP	STRIP ,x= 1101
1005	1096	- GAL.	.069758	.069758	•069 ⁷ 58	.069758	1.000000	1.000000	1.177	
1195	1997	CaL.	.01574i	.119867	.015740		1.000000		1.433	
1095	1398	CAL.	•055797	.073429	.055797		1.003000		1.854	
1095	1799	PAL.	. 188759	.058292	.088759	.088759	1.000000	1.00000	2.923	
10 05	FF SUM	= .5397	ROW OF	TIME =	2.929		+ RECT	- Y	INSIDE TOP	PANNEL5,X=1101.
1095	1097	rat.	.055797	.070429	•055 ⁷ 97	. 55797	1.000000	1.000000	.467	

MODEL = CONTAM STEP = 1 FORM FACTOR CALCULATION LINK.

SHUTTLE CONTAMINATION STUDY (SPACE LAB3 (RECIEVING SHUTTLE))

(* INDICATES NOTE PAIR HAS BEEN SUBDIVITED):

NODE I	иоре Ј	COMPUTATION	FE(I,J) W/SHAD	FE(J,I) W/SHAD	FA(I,J) W/SHAD	F (I,J) WO/SHAD	SHAD. E FACTOR		CP TIME (SEC)+	
1096 1796	1798 1099	CAL. CAL.	.015740 .086759	.019867	.015740 .088759		1.000000			·
10 96	FF SUM	= .5243	ROW CP	TIME =	1.705		+ RECT	+Y	INSIÓE TOP	PANNELS, X=1181.
									•	•
1397 1097	1098 1099	CAL.	.061300 .093268	.061000 .048528	.u51000 .u93268		1.000000			
10 97	FF SUM	= .5124	ROW CP	TIME =	1.670		+ RECT	-Y	INSIDE BOTT	OM PANNELS, X=1
1098	10 99	CAL .	.093258	.048528	.093268	.093265	1.000000	1.000000	1.266	,
1398	FF SUM	± .5003	POM CP	TIME =	1.272		+ RECT	+Y	INSIDE BOTT	OM PANNELS,X 11
1099	FF SUM	= .4329	ROW CP	TIME =	.021		+ RECT	PALL	ET 5 BOTTON	f,X=1u11.2 TO 12

TOTAL OP TIME (SEC) FOR PPOBLEM = 1964.574

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SPACELAB-3 GEOMETRIC RELATIONSHIP DATA MATRIX

The following pages contain the geometric relationship data computer printouts for the Spacelab-3/Orbiter configuration.

HODEL = CONTAM STEP = 1
PROCESSSING OPERATION DATA

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

PROPESS	SING OPE	RATION DATA		•			
NODE I	NO DE J	F(E,J)	AREA	THETI	THETJ RADIUS	NORMAL VECTOR I	POSITION VECTOR I
						·	
							• ·
					•		,
		•					
					•		
	4553	000014	3.71E+03	7.51	89.34 5.72716E+02	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.30E+01
20	1052	.900041	3.715+03	17.91	83.65 5.96705E+02	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
20	1953	.000062	3.71E+03	5.92	83.37 5.71961E+02	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
20	1754	.000072	3.71E+03	17.89	72.40 5.966465+02	3.71E+03 0. 1.44E-U8	-4.70E+02 -9.54E+01 8.00E+01
20	1055 1056	.300079	3.71E+03	9.25	98.26 5.75297E+J2	7.71E+03 D. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
30 20	1755 1757	.001059	3.715+03	18.26	71.74 5.979146+02	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
5 0	1058	.001039	3.71E+03	13.97	85.53 5.82390E+02	3.71E+03 B. 1.44E-J8	-4.70E+02 -9.54E+01 . 8.00E+01
23	1059	•301554	3.71E+03	15.29	76.74 5.91535E+02	3.71£+93 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
23	1452	. 100040	3.71E+03	3.37	87.93 4.599366+92	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
20 20	1,53	.000113	3.716+03	22.01	82.25 4.89484E+02	3.71E+03 G. 1.44£-08	-4.70E+02 -9.54E+01 8.30E+01
20	1054	.000141	3.71E+03	8.63	81.73 4.583956+02	3.71E+03 0. 1.44E-98	-4.702+02 -9.54E+01 8.00E+61
2 G	1065	• 102 T 36	3.71E+63	21.99	60.37 4.89412E+02	3.71E+03 0. 1.44E-08	-4.70E+u2 -9.54E+01 8.00E+01
20	1.65	.003164	3.71E+03	11.51	90.07 4.671185+02	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01 H
20	1967	.001897	3.712+03	22.43	67.57 4.90957E+02	3.71E+33 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01 00 -4.70E+02 -9.54E+01 8.00E+01
20	1358	.003511	3.716+43	15.19	84.48 4.725455+02	3.71E+03 0. 1.44E-38	**************************************
23	1059	.002812	3.715+03	80.08	77.69 4.83168E+02	3.71E+93 0° 1.44E-08	
20	1372	.000187	7.712+03	12.43	87.27 3.473535+02	3.71E+03 0. 1.44E-U8	
20	1073	.000217	3.712+83	28.37	80.16 3.861665+32	3.71E+03 0. 1.44E-08	*****
20	1074	.100329	3.715+33	11.45	79.02 3.467035+42	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01 -4.70E+02 -9.54E+01 8.00E+01
20	1075	.Gu4577	3.71E+03	23.74	62.14 3.86375E+U2	3.71E+03 0. 1.44E-08	-4.702+02 -9.54E+01 8.30E+01
20	1,75	.001369	3.71£+03	15.22	90.19 3.52148E+32	3.712+03 0. 1.44E-08	-4.70E+02 -9.54E+01 B.00E+01
20	1077	.]03668	7.715+03	23.87	61.13 3.88J31E+02	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+G1
20	1078	.001096	3.712+03	21.20	82.84 3.644566+92	3.716+03 0. 1.446-08	-4.73E+02 -9.54E+01 6.00E+01
20	1079	.075692	3.715+03	26.02	68.97 3.781298+02	3.71E+03 0. 1.44E-08 7.71E+93 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
29	1892	.00J61 1	3.715+03	18.35	86.00 2.37992E+J2		-4.70E+02 -9.54E+01 8.00E+01
20	10AJ	.000457	3.71E+03	39.09	76.88 2.903405+02		-4.70E+02 -9.54E+J1 8.00E+01
20	1034	.991958	3.715+93	15.96	73.76 2.36167E+12		-4.70E+02 -9.54E+01 8.00E+01
5.1	1085	.009572	3.71E+u3	39.07	51.66 2.903185+32	3.71E+03 0. 1.44E-08 3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+G1
20	1495	.001060	3.71E+03	22.26	99.14 2.439876 02	3.71E+83 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
50	1087	.007595	3.712+03	39.58	50.33 2.934106+02	3.715+03 0. 1.44E-0d	-4.70E+02 -9.54E+01 8.00E+01
20	11183	.902719	3.715+03	33.27	79.99 2.61433E+02 61.03 2.80184E+02	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
20	1039	.012723	3.715+33	35.70	82.92 1.34560F+02	3.71E+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.J0E+01
٦)	1032	.003709	3.718+03	33.81	72.10 2.14345E+92	3.71E+03 0. 1.44E-J8	-4.70E+02 -9.54E+01 8.00E+01
20	1093	.039747	3.715+03	58.64 31.63	59.81 1.31307F+72	3.715+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
5.3	1894	105846	7.712+03	31.63 58.62	32.32 2.14683t+02	3.71F+03 0. 1.44E-08	-4.70E+02 -9.54E+01 8.00E+01
2)	1095	.015514	3.71£+83	20,02	35.35 54.540345.45		

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NODE T	ר פסטע	F(I,J)	APEA	THETI	THETJ	RAOIUS	NORMA	L VECTOR	ı .	POSI	TION VECTO	R I
20	1095	.003710	3.715+03	19.58	90.23	1.45052E+02	3.71E+03 0	•	1.44E-08		-9.54E+01	8.00E+01
20	1097	011959	3.71E+03	59.17	30.85	2.18131E+J2	3.71E+03 0	•	1.44E-08	-4.7BE+02		8.00E+01
23	1398	.006+41	3.71E+03	49.69		1.7231GE+J2	3.71E+03- 0		1.44E-98	-4.70E+02		8.J0E+81
53	1099	.023784	3.71E+03	56.02		2.00341E+02		•	1.44E-08	-4+70E+02	-9.54E+01	8.00E+61
	103				,,,,							
21	1051	.000041	3.71E+03	7.51	88.34	5.72716E+02		•	1.44E-08	-4.70E+92	9.54E+31	8.00E+01
21	1357	.000072	3.715+93	5.92	83.37	5.71961ē+u2		l •	1.44E-08	-4.70E+02	9.54E-01	8.00E+01
21	1354	.909362	3.71E+03	17.91		5.967055+02		•	1.445-08	-4.70E+02	9.545+01	8.40E+01
21	1055	.300086	3.715+03	9.25	90.06	5.75274E+02	3.712+03 0	l •	1.44E-08	-4.70E+02	9.54E+J1	8.002+01
21	1056	.001297	3.71E+03	17.39	.72.55	5.96564£+02	• • • • • • •	I •	1.44E-08	-4.7GE+02	9.542+81	3.30E+01
21	1057	. 109275	3.715+03	13.07	85.53	5.82390E+J2	3.71E+03 0		1.44E-J8	-4.70E+J2	9.548+01	8.005+61
21	1058	.001659	3.712+03	18.26	71.74	5.97914E+J?	3.71E+03 (١.	1.44E-08	-4.70E+02	9.54E+01	8.0u=+C1
21	1059	.001554	3.71E+03	15.29	70.74	5.91535E+02	3.715+03 0	١.	1.446-08	-4.7JE+02	9.54E+01	8.09E+01
21	1051	.000000	3.715+93	9.37	87.93	4.59336E+32	3.71F+03 C	•	1.44E-08	-4.70E+02	9.54E+01	8.80E+01
21	1053	.000141	3.71E+03	8.63	81.73	4.50995E+02	3.71E+03 (1.44E-38	-4.70E+02	9.54E+01	8.00E+01
21	1964	.000110	3.715+33	22.91		4.894846+02		1.	1.44E-08	-4.70E+J2	9.545+01	8.30E+01
21	1755	.303164	3.71E+ú3	11.51		4.631188-02			1.44E-08	-4.70E+02	9.542+01	5.00E+01
	1966	.002336	3.71E+03	21.99		4.89+12E+92		1.	1.44E-08	9-4.70E+02	9.54E+01	8.03E+01
21		.000511	₹• 71ĕ+33	15.19	84.48	4.72545E+02		•	1.44E-08	-4.702+02	9.54E+01	3.90E+01
21	1067	•041997	7.71E+93	22.+3		4.90957E+02			1.44E-38	-4.70E+02	9.54E+01	8. 302 01 H
21	1068		3.71E+63	20.08		4.83168E+02		i •	1.44E-08	-4.7JE+J2	9.545+31	8.30E+01 9
51	1059	.002312		12.43		3.479536+02			1.446-08	-4.70E+02	9.548+01	8.00E+01
21	1071	.005187	₹.71E+03 3.71E+03	11.45		3.467ú8E+J2			1.44E-38	-4.73E+32	9.54E+J1	8.33E+G1
21	1073	.101329		28.37		3.86166E+J2			1.44E-08	-4.70£+02	9.54E+01	8.005+01
71	1074	.000217	3.715+03			3.52148E+u2			1.445-08	-4.70E+32	9.548+01	3.J0E+01
21	1075	.003359	3.715+03	15.22		3.86175E+02			1.44E-J8	-4.70E+02		8.jCE+01
21	1076	.304577	3.715+03	23.34					1.44E-38	-4.70402	•	3.3JE+61
21	1977	.001086	3.716+03	21.29		3.64456E+92		· •	1.44E-J8	-4.70c+02		8.00E+G1
21	1079	.003688	3.716+33	28.37		3.803315+32		· •	1.446-38	-4.702.02		8.00E+01
21	1079	<u>.</u> 105682	3.715+03	26.02		3.781295+02		• -	1.44£-38	-4.70E+02	-	8.302+01
?1	1091	.300511	3.712+03	16.35		2.378925+32		•	1.44E-38	-4.73E+02	•	5.00E+01
21	1037	.001358	. 3.71E+N3	16.96		2.363672+42			1.44E-08	-		3.00E+01
71	1984	.000457	3.71E+03	39.09		2.90940E+02	•••	•				8.005+01
21	1345	.301760	3.71E+03	22.26		2.43937E+02		} •	1.44E-08	-4.702+02		8.30E+01
21	1036	.009572	3.715+03	39.97		2.903185+02	,		1.44E-38			8.00E+01
21	1037	.302719	3.71E+03	30.27		2.61+38E+02).	1.44E-08	-4.738+32		
² 1	1083	.907595	3.71=+03	39.68		2.93410E+02		•	1.44E-08			8.00E+01
21	1039	.012723	3.71c+03	36.30		2.80184E+02		J •	1.44E-08			8.03E+01
21	1091	.003749	3.715+03	33.81	82.92	1.34560E+02	·	•	1.44E-0B	-4.702+02		8.00E+01
21	1097	005846	3.71E+03	31.63	59.81	1.31337E+92		B •	1.44E-38			8.00E+C1
21	1094	000747	'3.71E+03	58.64	72.10	2.148485+02		3 •	1.44E-05			8.000+01
21	1095	003710	3.715+03	33.58	90.23	1.457628+42		3.	1.44E-08			8.00E+01
21	1096	015514	3.71E+03	58.62	32.82	2.14633E+02	3.71E+03	0.	1.44E-38			8.392+61
21	1197	006441	3.71=+03	49.69		1.723105+42		C• .	1.446-08			3.GJE+61
21	1198	,011959	7.715+63	59.17		2.181815+02	3.715+63	Ů •	1.44E-08			8.00E+G1
21	1099	.023784	7.71F+J7	56,02		2.00341E#02	3.712+07	D .	1.44E-38	-4.70E+02	9.54E+01	8.00E+01
E. A	• • • •	, •				¥						

							4 555.54	4 005 . 84	-3.82E+02 -7.21E+01 -7.21E+01
150	1053	.008032	2.80E+04	84.53	90.79 4.85731E+02	-7.72E-08		1.98E+04	
150	1952	.000013	2.80=+04	83.96	90.79 4.86820E+02	-7.72E-08	1.98E+04	1.98E+04	-3.82E+02 -7.21E+01 -7.21E+01
150	1060	.000100	2.50E+04	82.88	91.02 3.73393E+02	-7.725-08	1.98E+04	1.98E+04	-3.82E+02 -7.21E+01 -7.21E+01
159	1062	.000008	2.30E+04	82.14	91.02 3.74398E+02	-7.72E-03	1.98E+04	1.93E+04	-3.82E+02 -7.21E+01 -7.21E+01
15 J	1073	908498	2.30E+0.	79.85	91.46 2.624925+02	-7.72E-08	1.98£+04	1.98E+04	-3.82E+02 -7.21E+01 -7.21E+01
150	1072	.000046	2.8 FE+04	78.83	91.45 2.64501E+02	-7.72E-08	1.98E+04	1.98E+J4	-3.82E+02 -7.21E+J1 -7.21E+01 N
150	1090	044185	2.802+04	72.76	92.45 1.561205+02	-7.72£-08	1.98E+04	1.98E+34	-3.82E+02 -7.21E+01 -7.21E+01 8
150	1092	.001819	2.805+84	71.26	92.40 1.59475E+02	-7.72E-08	1.982+04	1.931+04	-3.82E+G2 -7.21E+01 -7.21E+01
150	1090	.4391F7	2.80E+94	52.72	95.J1 7.647G6E+01	-7.72ë-0a	1.98E+04	1.98E+04	-3.82E+02 -7.21E+01 -7.21E+01
	1092	.016158	2.80:+04	51.91	94.61 8.304098+01	-7.725-08	1.98E+84	1.98E+34	-3.82E+02 -7.21E+31 -7.21E+01
150		•	2.8Ci+04	21.77	44.27 1.54136E+82	-7.72E-03	1.98E+04	1.98E+04	-3.82c+02 -7.21E+01 -7.21E+01
150	1095	.075355	2.40E+34	32.70	56.78 1.24695E+02	-7.72E-08	1.985+04	1.93E+34	-3.82E+02 -7.21E+01 -7.21E+01
150	1097	•0M5633	25405434	32.10	90471 14240932102	, , , , , ,	20302.01		• • • • • • • • • • • • • • • • • • • •
_			0.005.01	04 50	91.22 3.13775E+02	-7.72E-08	1.982+04	1.98E+04	-2.07E+02 -7.21E+01 -7.21E+01
151	1050	*un0517	2.8CE+04	81.52	91.21 3.154576+02	-7.722-08	1.982+04	1.98E-04	-2.07E+02 -7.21E+31 -7.21E+01
151	1052	.007019	2.805+64	80.65		-7.72E-08	1.98E+04	1.98E+04	-2.07E+02 -7.21E+01 -7.21E+01
151	1057	.001745	8.80E+04	76.92	91.87 2.04554E+02	-7.72E-08	1.98E+04	1.98E+04	-2.07E+02 -7.21E+01 -7.21E+01
151	1052	.000130	2.985+84	75.68	'91.85 2.07126E+02			1.98E+04	-2.07E+02 -7.21E+01 -7.21E+01
151	1070	.264457	2.30E+14	64.10	93.61 1.059336+02	-7.72E-0d	1.98=+04		-2.07E+02 -7.21E+01 -7.21E+01
151	1972	.010037	2.80F+04	62.47	93.45 1.109182+02	-7.72E-96	1.98E+C4	1.98E+04	-2.07E+02 -7.21E+01 -7.21E+01
151	1087	.406454	2.834+84	55.25	94.72 8.12JG0E+J1	-7.72E-08	1.98E+04	1.988+04	
151	1482	015083	2.000+34	5+•15	94.38 8.747685+01	-7.72č-08	1.985+04	1.98E+04	-2.07E+02 -7.21E+01 -7.21E+01
151	1090	.918729	2.802+04	73.93	92.29 1.672345+02	-7.72E-03	1.902+04	1.98E+04	-2.07E+02 -7.21E+01 -7.21E+01
151	1092	.073955	2.80E+04	72.50	92.25 1.7034JE+J2	-7.72E-05	1.98E+04	1.98E+J4	-2.075+0 ² -7,215+J1 -7.216+01
		•							7 ACC. 64 7 ACC. 54 7 ACC. 64
152	1050	.77598	2.80E+04	71.91	92.57 1.49J79E+U2	-7.72E-08	1.98E+04	1.98E+04	-3.25E+01 -7.21E+01 -7.21E+01
152	1052	.002707	12.8GE+04	79.38	92.51 1.52599E+02	-7.72E-08	1.988+04	1.98E+04	-3.25E+01 -7.21E+01 -7.21E+01
152	1760	439739	2.80E+04	51.44	95.16 7.42445E+01	-7.72E-08	1.985+04	1.98E+04	-3.25E+01 -7.21E+01 -7.21E+01
152	1952	215341	2.80E+04	50.80	94.72 8.10617E+J1	-7.72E-08	1.98E+04	1.98E+04	+3.25E+01 +7.21E+01 -7.21E+01
152	1070	185869	2.905+04	67.63	97.15 1.216225+02	-7.72E-û8	1.98E+94.	1.98E+04	-3.25E+01 - 7.21E+01 - 7.21E+61
152	1072	.007101	2.805+04	65.39	93.04 1.25899E+02	-7.72E-08	1.98E+04	1.98E+J4	-3.25E+01 -7.21E+01 -7.21E+01
4"4	In. C	# 0 0 \ T A T							

NOOE I	NODE J	F(I,J)	AREA	THETI	THETU	RADIUS	NOR	RHAL VECTOR	I	POSI	TION VEGTO	RI	
152	1030	.001095	2.80E+04	79.06	91.71	2.23749E+02	-7.72E-08	1.98E+04	1.98E+04	-3.25E+01	-7.21E+01	-7.21E+01	
152	1087	.000167	2.80E+04	76.93	91.69	2.261025+02	-7.72E-08	1.98E+04	1.98E+84	-3.25E+01	-7.21E+01	-7.21E+01	
152	1490	.000154	2.805+04	82.03		3.33657E+02							
152	1092	.000014	2+8CE+04	81.21	91.14	3.35240E+02	-7.722-08	1.98E+04	1.98E+04	-3.258+01	-7.21E+01	-7.21E+01	
153	1951	.390456	2.80E+04	57.06	94.50	8.51155E+01	-7.72E-08	1.98E+84	1.98E+44		-7.21E+01		
153	1052	.014222	2.065+64	55.79	94.20	9.11230E+01	-7.72E-08	1.985+04	1.98E+04		-7.21E+01		
153	1055	.007301	2.80=+94	25.53	45.92	1.586080+02	-7.72E-08	1.98E+04	1.98E+04		-7.21E+01		
153	1037	.003193	2.855+94	35.31	. 58 • 36	1.30217E+02	-7.725-88	1.98E+04			-7.212+11		
157	1059	.001722	2.8CE+04	43.58	100.96	8.64284E+01	-7.72E-08	1.985+34	1.98E+04	1.432+02	-7.21E+J1	-7.21E+01	
153	1450	.011641	2.965+94	74.62	92.19	1.744482+02	-7.72E-48	1.98E+04	1.98E+04	1.43.+02	-7.21E+01	-7.21E+61	
15 7	1952	.000633	2.80E+94	73.22		1.77457=+02			1.98E+04	1.435+02	-7.21E+01	-7.21E+01	
153	1070	000354	2.005+94	80.56	91.36	2.821562+02	-7.72E-08	1.93E+04		1.43E+02	-7.21E+01	-7.21E+81	
153	1972	.000232	2.80E+04	79.61	91.35	2.84126E+12	-7.72E-08	1.98E+04		1.43E+02	-7.21E+J1	-7.21E+01	
153	1083	.000079	2.875+04	83.24		3.93425E+02				1.43E+82	-7.21E+01	-7.212-61	
153	1362	. 200007	2.80=+04	82.54		3.94769E+02					-7.21E+01		
193	1091	.003027	2.85E+04	84.75		5.05912E+02					-7.21E+31		
153	1097	000002	2.8GE+04	84.20	90.75	5.06957E+02	-7.72F-1A	1.945+64	1.9AF+34		-7.21E+01		
193	104	• 000002	7.002704	04125	30173	240032/2.06		21702-04	11 702 . 44	10 432,02		,,,,,,,	
154	1050	.000032	2.805+04	84.53	90.79	4.85731E+02	-7.722-38	-1.98E+04	1.98E+04	-3.82E+02	7.21E+01	-7.21E+01	2
154	1051	.000003	2.8GE+04	83.96	90.79	4.848202+02	-7.72E-08	-1.98E+04	1.98E+04	-3.82E+02	7.21E+01	-7.21E+81	7
154	1 25 0	.000100	2.8LE+74	82.89	91.02	3.73393E+02	-7.722-08	-1.98E-04	1.98E+04	-3.025+32	7.21E.01	-7.21£+01	
154	1051	830000	2.80E+04	82.14	91.02	3.74308E+02	-7.725-08	-1.98E+04	1.98E+04	-3.52E+02	7.21E+81	-7.21E+01	
154	1070	00-496	2.8FE+04	79.85	91.46	2.62492E+02	-7.72E-08	-1.99E+84	1.98E+04		7.21E+01	-7.21E+01	
154	1071	. 000046	2.90E+04	78.83	91.45	2.645016+02	-7.72E-08	-1.98E+04	1.98E+04	-3.822+82	7.21E+31	-7.21E+81	
154	1047	.044185	2.80E+04	72.76		1.561205+02				-3.82E+02	7.21E+01	-7.21E+C1	
154	1031	.001319	2.90E+04	71.26		1.59475E+02				-3.82E+02	7.21E+01	-7.21E+01	
154	1093	430157	2.905+04	52.72	95.01	7.64306E+01	-7.72E-08	-1.98E+04	1.98E+04		7.21E+01		
154	1071	916158	2.805+94	51.91		8.304095+01			1.98E+04		7.21E+01	-7.21E+01	
154	1096	.005355	2.805+04	21.77		1.54106E+02			1.98E+04	-3.82E+02			
154	1096	.002973	2.8CE+04	32.70		1.24595E+02				-3.82£+02		-7.21E+01	
155	1950	.000217	2.80E+04	81.52	91.22	3.13775E+02	-7.72F-08	-1.9AE+04	1.98E+04	-2.07E+02	7.21E.01	-7.21F+01	
155	1051	.100019	2.80E+04	80.65		3.15457E+02				-2.07E+02			
155	1051	001745	2.805+04	76.92		2.045545+02					7.215+31		
	-	000180	2.808+04	75.58		2.07126E+02				-2.076+02			
155	1051			64.10		1.65933E+02					7.212+01		
155	1070	.264467	2.005+04			1.103338E+02					7.216+01		
155	1071	.010037	2.80E+04	62.47									
155	1090	406454	2.802+04	55.25		8.120002+01			1.98E+04		7.21E+01		
155	1081	.015083	2.905+04	54.15		8.74768E+01			1.95E+04	-2.07E+02		-7.21E+01	
155	1090	.018229	2.805+34	73.93		1.67204E+02			1.93E+04		7.21E+01		
155	1091	.600955	2.502+04	72.50	92.25	1.70346E+02	-7.72E-08	-1.98E+04	1.98E+04	-2.07č+02	7.21E+01	-7.21E+01	
156	1050	. 77598	2.8CE+04	71.91	92.57	1.49079E+02	-7.72E-08	-1.98E+04	1.98E+04	-3,25E+01	7.216+01		
156	1051	902707	2.8(4+04	70.38	92.51	1.52589F+02	-7.72E-08	-1.98E+04	1.98E+04	-3.25E+01	7.212+01	-7.21c+01	
156	1050	.439779		51.44		7.42+45E+01				-3.25E+01			
4 W			-	· -									

SHUTTLE CONTAHINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

MODEL = CONTAM STEP = 1 PROCESSSING OPERATION DATA

NODE T	NODE J	F(I,J)	AREA	THETI	THETJ	RADIÚS	NOR	HAL VECTOR	I		TION VECTO		
156	1051	. 0 15 38 1	2.80E+04	50.80	94.72 8	.10617E+01	-7.72E-08	-1.98E+04	1.98E+04		7.21E+01		
156	1070	a 185 d 69	2.805+04	67.63		.21622E+02	-7.72E+08	-1.985+84	1.98E+04		7.21E+01		
156	1371	.007101	2.005+04	65.99		.25499E+02	-7.72E-08	-1.98E+04	1.98E+04		7.21E+01		
156	10-1	.001095	2.8CE+04	78.06		.23749E+02	-7.72E-08	-1.98E+D4	1.98E+04		7.21E+01		
156	1081	.309107	2.89E+04	75.90	91.69 2	.26132E+02	-7.72E-08	-1.98E+04	1.98E+84	-3.25E+01	7.21E+01	-7.21E+01	
156	1093	000164	2.80E+34	82.03		.37657E+02	-7.72E-08	-1.98E+84	1.98E+04		7.21E+01		
156	1091	.003134	2.8CE+04	81.21		.35240E+02	-7.72E-03	-1.98E+04	1.98E+04	-3.25E+01	7.21E+01	-7.21E+01	
120	1091	#0000X4	23000104	71011	2202.				•				
157	1053	.393456	2.80E+04	57.06	94.50 8	.51155E+01	-7.72E-08		1.98E+44	1.435+02		-7.21E+G1	
157	1051	.014222	2.0CF+04	55.79	94.20 9	.11230E+01	-7.72E-08		1.98£+04	1.43E+02	7.21E+01	-7.215+01	
157	1056	.007375	2.802+04	25.53	45.53 1	.586J2E+02	-7.72E-08	-1.98E+04	1.98E+14	1.436+52	7.21E+31		
157	1055	.003143	2.80E+04	36.31	58.36 1	.39217E+02	-7.72E-03	-1.98E+04	1.93E+04	1.43E+02		-7.21E+01	
157	1059	.009722	2.302+04	43.58	100.96 3	.64284E+01	-7.72E-08	-1.98E+04	1.98E+04	1.43E+02	7.21E+01		
157	1050	.311541	2.805+04	74.62		.74448E+02	-7.72E-08	-1.98E+û4	1.955+04	1.436+02		-7.21E+G1	
157	1351	.100663	2.865+04	73.22		.77457E+02	-7.72E-98	-1.982+04	1.98E+04	1.43E+02	7.21E+01	-7.21E+01	
157	1370	003354	2.862+4	99.56		.82156E+02	-7.72E-08	-1.98E+04	1.98E+04	1.43E+02	7.21E+J1	-7.21E+01	
157	1071	.000032	2.80E+04	79.61		.84026E+02	-7.72ā-08	-1.982+04	1.98E+J4	1.435+02	7.21E+01	-7.21E+01	
157	1097	.000379	2.80E+04	R3.24	90.97 3	934255+02	-7.72E-0a	-1.985+04	1.98E+04		7.215+91		
157	1091	.000007	2.905+4	82.54		.94769E+02	-7.722-03	-1.985+04	1.95E+04	1.43E+62	7.21E+01	-7.21E+01	
157	1090	.009027	2.804+94	84.75		.05312E+02	-7.72E-08	-1.98E+04	1.98E+04	1.432+02	7.21E+01	-7.21E+01	N
157	1091	.000032	2.90:+84	84.20		.06357E+02	-7.72E-08		1.98E+84	1.43E+02	7.21E+01 7.21E+01	-7.21E+01	. 0
1.71	10-1	*00005	C	0.10-0		•							
140	ា ព្រះជ	.000012	3.27=+04	12.66	91.38 5	.819555+02	3.27E+84	0 -	1.27E-07		-5.1GE+01		
149	1054	.003011	3.272+04	2 • 87	91.41 5	.68514F+02	3.27E+04	C.	1.27E-07		-5.10E+01		
146	1055	.000557	3.27E+04	11.63	78.75 5	.79707E+32	3.27E+04	٥.	1.27E-07	-4.70E+02	-5.108+01	-3.99E-10	
149	1356	.000544	3.27E+04	1.66		.68u57E+02	3.27E+04	0.	1.27E-07		-5.10E+01		
140	10=7	.000434	3.27£+04	10.60	79.95 5	.77565E+J2	3.27E+04	0.	1.276-07	-4.70E+02	-5.10±+01	-3.995-10	
140	1058	.000430	3.27E+84	4.29		.69395E+u2	3.272+44	C •	1.27E-07		-5.10E+01		
140	1759	.000734	3.275+04	7.58	84.42 5	.728JCE+12	3.27E+04	0.	1.27E-07		-5.10E+01		
140	1053	.000023	3.27E+04	15.7J	91.70 4	.71390E+02	3.27E+04	0.	1.27E-07		-5.10E+01		
149	1054	.000022	3.276+04	3,59		.54693E+J2	3.272+04	0.	1.27E-07		-5.10E+01		
140	1765	.301067	3.275+94	14.44	76.04 4	.68613E+02	3.27E+04	0.	1.276-07	· -4.70E+ú2	-5.10E+51	-3.99E-10	J
140	1066	.001965	3.27£+04	2.03	87.95 4	.54098E+02	3.272+04	0.	1.27E-07		-5.1GE+01		
141	1967	.000824	3.275+04	13.18	77.51 4	.66334E+02	3.27E+04	0.	1.27E-37	-4.7JE+82	-5.10E+01	-3.995-10	
140	1953	.009825	3.27E+04	5.36	86.86 4	.55 ⁷ 94E+92	3.272+04	0.	1.27E-07	-4.70E+02	-5.10E+01	-3.99E-10	Į.
140	1069	001409	3.27£+04	9.45		.60341E+02	3.27E+04	3 •	1.27E-07	-4.70E+02	-5.1GE+01	-3.99E-10	Į
140	1077	.000055	3.27E+04	20.58	92.21 3	.62958E+92	3.272+04	0.	1.27E-07		-5.1CE+01		
140	1774	100048	3.27E+04	4.79	92.35 3	.40391E+J2	3.27E+04	0.	1.27£-07		-5.10E+01		
140	1075	.002416	3.27E+04	18.98	71.65 3	.59343E+02	3.27E+04	0 •	1.27E-07		-5.10E+01		
140	1975	.002488	3.272+04	2.77	87.26 3	.40198E+02	3.27E+34	0.	1.27E-07		-5.10E+31		
140	1977	.001369	3.27E+04	17.77	73.55 3	.56339E+J2	3.27E+04	Û.	1.27E-07		-5.10E+01		
140	1078	.001873	3.27E+04	7.14		.42458E+02	3.27E+84	0.	1.27E-07		-5.102+01		
140	1079	.003207	3.27E+04	12.53	80.79 3	.48)91E+J2	3.275+34	3	1.27E-J7		-5.18E+G1		
140	1083	.200145	3.275+64	29.47		.5934FF+02	3.275+04	0.	1.276-07		-5.10E+01		
140	1034	.003137	3.275+04	7.19		.27589E+J2	3.272+04	C -	1.278-37		-5.10E+01		
140	1034	.307173	3.276+04	27.37		.54262E+02	3.272+04	0.	1.27F-07	-4.70E+02	-5.10c+01	-3.995-10	ı
T 20 A	£ 0 0 °	+ 3 U 1 A 1 U	-, , , , , ,		- ·							•	

MODEL = CONTAM STEP = 1 PROCESSSING OPERATION DATA

NODE I	NODE 1	F(1, 1)	APEA	THETI	THETA	RADIÚS	NOR	MAL VE	CTOR I	POSITION VECT	
44.5	4 8 4 6	.007065	3.27E+04	4.17	85.88	2.26399E+02	3.27E+04	0.	1.27E-07	-4.70E+02 -5.10E+01	-3.99E-10
140	1886	005550	3.27E+04	25.21		2.49570±+02	3.27E+04	0 .	1.27E-07	-4.70E+02 -5.10E+01	-3.99E-10
140	1097	.005610	3.272+04	10.68		2.29781E+J2	3.27E+04	Q e	1.27E-07	-4.70E+02 -5.10E+01	3。99E-10
140	1988		3.27E+04	18, 49	76-47	2.38J95E+J2	3.275+04	0.	1.27E-07	-4.70E+82 -5.10E+81	3.99E-10
140	1089	. ngas26		48.77		1.69627£+02	3.27E+04	Ü.	1.27E-07	-4.702+02 -5.10E+01	3.99E-10
140	1093	.001177	3.275+04	14.29		1.153735+02	3.27E+04	0	1.27E=07	-4.70E+02 -5.10E+01	-3.99E-18
140	1094	.001174	3.275+04	46.28		1.61749E+32	3.276+04	0.	1.27E-07	-4.70£002 -5.10E+01	3.99E-10
140	1795	.0243A6	3.27E+04	8.37		1.133058+02	3.27E+04	0.	1.27E-07	-4.70E+02 -5.10E+31	3.99E-10
147	1090	023765	3.27E+04	43.56		1.54269E+02	3.275+04		1.27E-07		-3.99E-10
140	1097	.513489	3.27E+04			1.19537E+02	3.27E+84	0.	1.27E-07		-3.99E-10
149	1093	.019214	3.27E+34	20.65	65 62	1.34917E+02		0.	1.27t-07		-3.99E-10
140	Thad	.035641	3.27E+04	34.04	•						
135	1053	.000809	3.272+04	43.93	94.37	1.83715E+02	-3.27E+04	0.	1.27E-07	2.30E+02 -5.10E+01	7.005.40
175	1054	.001366	3.27:+04	12.15		1.35233E+02	-3.27E+04	0.	1.27E-07	2.30E+02 -5.10E+01	3.995-10
135	1955	JIATER	3.27E+04	41.48	50.16	1.76466E+J2	-3.27E+04		1.27E-07	2.30E+02 -5.10E+0:	1 3.995-10
135	1056	18825	3.275+84	7.10	82.85	1.33202E+02	-3.272+04	0.	1.27E-37	2.306+02 -5.106+0	L 3.992-10
175	1357	015342	3.275+04	33.80	53.53	1.69037E+02	-3.275+04	0 .	1.27E-07	2.30E+02 -5.10E+0	
135	1058	115342	3.27E+u4	17.06	79.65	1.38391E+J2	-3.27E+04	0.	1.27F-J7	2.30E+02 -5.10E+0:	
135	1059	024858	3.27E+04	29.74	68,54	1.52251E+02	-3.27E+04	0.	1.27L-07	2.30E+J2 -5.10E+0:	
175	1857	.300144	3.27E+04	27.39	92.09	2.77288E+02	-3.27E+04	0.	1.27E-07	2.30E+02 -5.10E+0	
145	1354	.000111	3.275+94	6.60	93.24	2.478426+02	-3.27E+04	0.	1.27E-37	2.30E+02 -5.10E+0:	1 3.99E-10 💢
135	1065	.005750	3.275+04	25.40	65.49	2.72540E+02	-3.27E+04	0.	1.27E-07	2.30E+02 -5.10E+0:	1 3.99E-10
135	1005	.005588	3.27E+04	3.82		2.46749E+92	-3.27E+04	B •	1.27E-3 7	2.305+02 -5.10E+0:	1 3.99E-10
	1857	.004439	3.27E+04	23.35	67.92	2.69168E+02	-3.27E+04	O.	1.27E-J7	2.30E+02 -5.10E+0	1 3.995-10
175	1057	.004473	3.27E+04	9,91	P4.27	2.49956E+J2	-3.27E+B4	0.	1.27E-07	2.305+02 -5.10E+0:	
135		.907583	3.278+44	17.05	77.51	2.57523E+02	-3.27E+04	0	1.278-07	2.30E+02 -5.10E+0:	L 3.99E-10
175	1,59	.000047	3.276+04	19.50	92.10	3.82123E+02	-3.27E+04	0.	1.27E-07	2.30E+02 -5.10E+0:	
175	1073	.003841	3.275.94	4.52	92.22	3.61324E+02	-3.27E+04	0.	1.27E-07	2.30E+02 ~5.10E+0	1 3.99E-10
175	1374	.007841	3.276+84	17.98	72.63	3.78592E+02	-3.27E+04	0.	1.27E-37	2.305+02 -5.105+0	1 3.99E-10
135	1375		3.272+04	2.62		3,69576E+02		ŝ.	1.278-07	2.30E+02 ~5.10E+0	1 3.99E-10
135	1176	.012049 .001569	3.275+04	16.44		3.75558E+02	-3.27E+04	0.	1.27E-07	2.30E+02 -5.10E+0	
135	1077		3.275+04	5.74		3.627098+02		٥.	1.27E-07	2.3JE+02 ~5.10E+0	1 3.99E-10
175	1078	.011591	3.275+04	11.84		3-689325+02		0.	1.27E-07	2.305+02 -5.105+0	1 3.99£-18
135	1079	.002727	3.275+04	15.06		4.91360E+02	-3.275+04	0.	1.27E-07	2.302+02 -5.105+0	
135	1183	.010123	3.27E+04	3.44		4.75154E+02		_	1,27E-07	2.30E+02 -5.10E+0	1 3.99E-10
1*5	1084	.00019	3.27£+u4	13.85	76.62	4.883946+02	-3.27E+04		1.278-07	2.30E+02 -5.10E+0	1 3.99E-10
135	1485	.000940		1.99		4.74486E+02			1.27E-07	2.30E+02 -5.10E+0	
185	1186	.000939	3.27E+04	12.63		4.85969E+02			1.27E-07	2.30E+02 ~5.10E+0	1 3.995-10
135	1037	.000726	3.276+04			4.761J9F+32	-3.27E+04		1.27E-07	2.302+02 -5.10E+0	1 3.99E-10
135	1738	.300727	3.276+04	5.13		4.80176E+02			1.27E-07		1 3.99E-10
175	1089	.001241	3.276+74	9.55		6.01375E+02		0.	1.27E-37		
135	1093	.00011	3.275+04	12.24		5.88869E+J2			1.278-07		
175	1094	.300010	3.27:+04	2.77		5.99702E+02			1.27E-07		1 3.99E-10
135	1095	.000533	.3.275+04	11.24		5.68430E+02			1.27E-17		
135	1096	.001593	3.276+04	1.60				0.	1.27E-07	_	
135	1097	.00030A	3.275+04	10.24		5.977786+32			1.27E-07		
135	1098	•003348	3.272+04	4.14	87.57	5.897485+02	-3.215.04	υ•	14276-01	Figgride Street	

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SHUTTLE CONTAMINATION STUDY (SPACE LAB3 (RECIEVING SHUTTLE))

NODE T	NO 05 1	F(T, J)	AREA	THETI	THETJ	RADIUS	NORMAL	VECTOR	I	POSITION VECTO	RI
135	1099	.000662	3,27E+04	7.32	84.61 5	.93026E+82	-3.27E+04 0.		1.27E-07	2.30E+02 -5.10E+01	3.99E-10

MODEL = CONTAN STEP = 1
PPOCESSSING OPERATION DATA

796	1052	.000017	2.416+04	86.94	84.72 3.94990E+02	-3.40E-07	2.08E+04 -1.23E+04	-2.95E+02 -1.15E+02 -1.31E+01
796	1052	.000168	2.41E+04	85.71	82.59 2.61877±+02	-3.40E-07	2.08E+04 -1.23E+04	-2.95E+02 -1.15E+02 -1.31E+01
796	1070	· #08443	2.41E+04	51.18	108.13 2.115285+02	-3.40E-07	2.08E+04 -1.23E+04	-2.95E+02 -1.15E+02 -1.31E+01
796	1272	016698	2.416+84	82.88	77.64 1.69954E+02	-3.402-07	2.08E+04 -1.23E+04	-2.95E+02 -1.15E+02 -1.31E+01
796	1090	.927129	2.41E+04	27.98	117.57 1.42006E+J2	-3-402-07	2.08E+04 -1.23E+04	-2.95E+02 -1.15E+02 -1.31E+01
796	1092	931458	2.41E+94	71.28	56.34 6.562065+91	-3.40E-07	2.08E+04 -1.23E+04	-2.95E+02 -1.15E+02 -1.31E+01
796	1090	.023699	2.415+04	25.50	116.58 1.46399E+02	-3.40E-07	2.08E+04 -1.23E+04	-2.95E+02 -1.15E+02 -1.31E+01
796	1092	.032511	2.415+0+	73.83	61.26 7.56285E+J1	-3.40E-07	2.08E+04 -1.23E+34	-2.95E+02 -1.15E+02 -1.31E+01
			2.41E+04	37.15	27.60 1.916275+02	-3.402-07	2.38E+04 -1.23E+04	-2.95E+02 -1.15E+02 -1.31E+01
796	1075	002426		28.96	37.42 1.76037E+02	-3.40E-07	2.68E+04 -1.23E+04	-2.955+02 -1.15E+02 -1.31E+01
79.5	1097	.001030	2.41E+04	20.40	1/142 11/000/2482	-31405-01	2.002.04 1.232.04	24 352 42 24 22 24 24
					44 45 4 303/45/83	-3 60C-07	2.08E+04 -1.23E+04	5.50E+01 -1.15E+02 -1.31E+01
798	1 ^5 0	•326692	2.41E+44	17.91	110.15 1.393446+02	-3.496-07		
798	1052	.931744	2.41E+04	69.32	52.43 5.96428E+01	-3.40E-07	2.08E+04 -1.23E+04	5.50E+01 -1.15E+02 -1.31E+01
798	1055	.002335	2.415.04	34.75	24.00 1.85900E+02	-3.40E-07	2.08E+04 -1.23E+J4	5.50E+01 -1.15E+02 -1.31E+G1
798	1357	011954	2.41E+04	24.88	34.57 1.69784E+32	-3.432-07	2.082+04 -1.23E+04	5.50E+01 -1.15E+J2 -1.31E+01
798	1960	.02+538	2.418+04	28.25	115.9u 1.50514E+02	-3.40E-07	2.08E+C4 -1.23E+04	5.58E+01 -1.15E+02 -1.31E+01
798	1052	032429	2.415+04	75.19	63.82 8.24310E+01	-3.40E-07	2.08E+04 -1.23E+04	5.50E+01 -1.15E+02 -1.31E+01
798	1065	000294	2.415+04	30.22	29.13 1.94413E+02	-3.40E-07	2.03E+04 -1.23E+04	5.50E+01 -1.15E+02 -1.31E+01
777 708	*	• -	2.41E+04	*0.67	38.67 1.79365E+02	-3.40E-07	2.08E+C4 -1.23E+04	5.50E+Q1 -1.15E+J2 -1.31E+Q1
-	1057	.001055			106.77 2.277816+02	-3.402-07	2.08E+04 -1.23E+04	5.50E+01 +1.15E+02 -1.31E+C1
798	1978	.011161	2.41c+04	54.40	INDALL SACLIDIEANS	-31475-01	CINGULA _TICSELOA	NINGTARY - TRINCARC -TRRECACT

MODEL = CONTA1 STEP = 1 PROCESSSING OPERATION DATA

· SHUTTLE CONTAMINATION STUDY (SPACE LAB3 (RECIEVING SMUTTLE))

NODE I	MODE !	F(I,J)	APEA	THSTI	THETJ	RADIUS	NO	RMAL VECTOR	R I	POST	ITION VEST	OR I
798 798 798	1072 1382 1092	.012452 .000096 .000013	2.41E+04 2.41E+04 2.41E+04	83.63 86.00 87.09	83.08	1.89301E+02 3.02370E+02 4.15263E+02	-3.40E-07 -3.40E-07 -3.40E-07	2.08E+04	-1.23E+04 -1.23E+04 -1.23E+04	5.50E+01	-1.15E+02 -1.15E032 -1.15E032	-1.31E+01
				3, 2 4 5			•		2020			
711	1050	.003438	2.99E+04	19.98		1.09530E+02			-7.98E-18	1.17E+02		-4.71E+01
311	1051	-004828	2.992+64	67.99		6.18988E+01		-2.99E+04			1.02E.02	
311 311	1050 1061	.007401 .000411	2.99E+84 2.99£+84	53.32 80.83		1.70741E+02 1.45620E+02		-2.99E+04 -2.99E+04			1.02E+62 1.02E+02	
					,						•	
360	1053	.002039	2.81E+04	84.43	74.37	7.81360E+02	-2.18E-07	2.81E+04	-1.098-07	-6.51E 002	-1.23E-06	2.255+02
380	1055	.000037	2.81E+04	85.21	80.78	7.86215E+02	-2.18E-07	2.81E+04	-1.09E-07	-6.51E¢02	-1.23E-08	2.25E+02
390	1057	.900024	2.81E+04	85.65	74.48	7.95846E+02	-2.18E-07	2.81E+84	-1.09E-07	~6.51E¢û2	-1.23E-98	2,255+02
390	1053	.300017	2.81E+04	93,53	71.76	6.72531E+02	-2.18E-07	2.812+04	-1.09E-07	-6.51E¢02	-1.235-06	2,25E+02 N
383	1465	.093077	2.81E+04	84.45		6.78639E+32			-1.09E-07	-6.51E+02	-1.23E-06	2.25E+02
340	1457	.002056	2.d1E+04	85.13		6.89744E+92			-1.09E-07	95.51E¢02		2°52E+05
38 O	1977	•00036	2.81E+U4	87.31		5.66392E+J2			-1.09E-07	-6.51€¢02	-1.23E-00	2.252+02
360	1975	.303162	2.812+04	83.43		5.73479E+02	,		-1.09E-07	∞6°21E∻35		2,252+62
390	1677	.300055	2.º 1E+04	85.45		5.86514E+02			-1.09E-07		-1.236-03	2.25E+02
349	1903	.001056	2.81E+84	69.59		4.63354E+02			-1.09F-07	-6.51E¢02		2.25£+02
380	1085	.063140	2.815+94	82.01		4.72482E+J2			-1.09E-07	-6.51E+02		2°52665
383	1087	.099077	2.81E+04	84.54		4.88340E+02	-2.18E-07		-1.09E-07		-1.23E-08	2.25E+02
3an	1093	.000035	2.812+04	78.12		3.68121E+02	-2.185-07		-1.09E-07	o6.51€+02		2.252.02
390	1995	.707079	2.51.+04	.80.62	69.05	3.78935E+02	-2.1dE-07	2.81E+04	-1.09E-07	∽6.51E¢82	-1.23E-08	2,252+02
335	1053	.390006	2.05E+04	85.02	76.15	8.73140E+02	-1.60E-07	2.05F+04	-7.99E-18	-7.46E∘02	01.71F=08	2.25E+02
385	1755	.989914	2.052.04	85.71		8.77754E+02			-7.99E-08	-7.46E+02		2.25E+02
785	1957	.000012	2.05E+04	86.99		5.86391E+J2			-7.99E-08	-7.46£+02		2.25E+02
385	1963	.003007	2.052+04	84.30		7.63505E+02	+1.6JE-07		-7.99E-08		-1.31E-00	2.252+02
745	1965	.000023	2.055+04	35.10		7.68777E+02	-1.605-07		-7.99E-08	-7.46€¢02		2,25€,02
385	1057	.000019	2.0FE+04	86.53		7.78624E+02	-1.60E~07		-7.99E-08		-1.31E-C8	2°25E 02
385	1073	.000011	2.05E+04	B3.36	_	6.55362E+02	-1.60E-07		-7.99E-88	46E 02		
385	1075	.300041	2.05E+04	84.33		6.61+96E+JZ	-1.60E-07		-7.99E-J6		-1.31E-û8	2.25£+02
395	1077	.900076	70 u 5E+04	85.74		6.72315E+02	-1.60E-07		-7.99E-j8		~1.31E~08	
345	1043	.060019	2.05E+94	82.07		5.49590E+02			-7.99E-08		01.31E=08	
385	1 7 8 5	.003757	2.05E+04	83.23		5.56891E+02			-7.99E-08		-1.31E-60	
385	1097	.000014	2.85E+74	85.32		5.70407E+02	-1.60 E-07		-7.99E-08		-1°31E-00	2.25E+C2
385	1993	.000003	2.055+04	80.26		6.473758+02	- · -		-7.99E-08	-7.46[>12		6.25E+07
390	1354	.000009	2.812+64	34.44	74.36	7.81351E+02	2.106-07	-2.81E+04	1.09E-07	-6.51£v02	~1.00E~61	2°556°05

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

MODEL = CONTAM STEP = 1 PROCESSING OPERATION DATA

PROCESS	SEINT OPE	KULTOM ONIM					NORMAL VECTOR	Ť	POSITION VECTOR	? I
NODE I	NODE J	F([,J)	AREA	THETI	THETJ	RADIUS	MOKHAE ACOLOW	,		2.25E+02
397 390 390 390 390 390 390 390 390	1056 1058 1054 1066 1068 1074 1076 1078 1034 1086 1094	.00076 .000724 .000077 .000077 .000056 .001036 .000162 .000055 .000056 .000077	2.61E+04 2.61E+04 2.61E+04 2.81E+04 2.81E+04 2.61E+04 2.81E+04 2.61E+04 2.61E+04 2.61E+04 2.61E+04 2.61E+04	85.22 86.54 83.54 84.46 86.32 85.46 85.46 85.45 85.45	74.43 71.76 78.49 72.02 63.18 76.34 68.72 53.35 64.15	7.86224E+02 7.95340E+02 6.72619E+02 6.78599F+02 6.89738E+02 5.66379E+02 5.73468E+02 4.63338E+02 4.63338E+02 4.72463E+02 4.88331E+02 3.68101E+02	2.18E-07 -2.81E+04 2.18E-07 -2.81E+04	1.09E-07 1.09E-07 1.09E-07 1.09E-07 1.09E-07 1.09E-07 1.09E-07 1.09E-07 1.09E-07	-6.51E+02 -1.00E-01 -6.51E+02 -1.00E-01	2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02
390 395 395 395 395 395 395 395 395 395 395	1095 1055 1055 1056 1056 1068 1077 1078 1078 1094	.000079 .000013 .000012 .000007 .000023 .000011 .000041 .000041 .000057 .000057	2.812+04 2.05E+304 2.05E+304 2.05E++04 2.05E++04 2.05E++04 2.05E++04 2.05E++04 2.05E++04 2.05E++04 2.05E++04 2.05E++04 2.05E++04	85.77 87.90 84.31 85.11 85.57 84.05 83.31 86.00 83.27	75.05 81.35 76.10 74.00 79.85 74.26 78.56 71.48 71.48 75.68	3.7d917E+02 8.7313?E+02 8.77754E+02 8.86336E+02 7.63436E+02 7.68769E+02 7.7d618E+02 6.55330E+02 6.61486E+02 6.61486E+02 6.549576E+02 3.5.56379E+02 3.5.70399E+02 4.47358E+02	1.5JE-07 -2.J5E-04 1.60E-07 -2.J5E+04 1.60E-07 -2.05E+04 1.60E-07 -2.05E+04	7.99E-08 7.99E-08 7.99E-08 7.99E-08 7.99E-08 7.99E-08 7.99E-08 7.99E-08 7.99E-00 7.99E-08	-7.46E+02 -1.00E-01 -7.46E+02 -1.00E-01 -7.46E+02 -1.00E-01 -7.46E+02 -1.00E-01 -7.46E+02 -1.00E-01	2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02 2.25E+02

399 399 399 399	1053 1054 1055 1056 1056	.000056 .000056 .000274 .000258 .010258	4.15E+03 4.15E+03 4.15E+03 4.15E+03 4.15E+03	62.25	73.02 7.20994E+02 79.25 7.26576E+32	2.94E+03 2.94E+03 2.94E+03	2.295-08 2.295-08	2.94E+03 2.94E+03	-5.88E+02 -1.08E-08 -5.88E+02 -1.08E-08 -5.88E+02 -1.08E-08 -5.88E+02 -1.08E-08	2.25E+02 2.25E+02	
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NORMAL VECTOR I

POSITION VECTOR I

9.78E-079 No57E-41 - - Mo50E+SE

F(I,J)

NODE I NODE J

MODE I	MOD- 1	L (143)	44.54	******				•	*			
399	1058	.000289	4.15E+03	66.33	73.20	7.36991E+02	2.946+03	2.29E-08	2.94E+03	-5.88E+02 -	.1.08E-08	2.25E+02 2.25E+02
399	1059	.002584	4.152+03	67.24	67.76	7.40472E+02	2.94E+03	2.29E-08	2.94E+03	-5.88E+02 ·	-1.000E-00	2.25E+02
- 399	1353	.300083	4.15E+03	65.43	69.93	6.135465+02	2.94£+03		2.94E+03	-5.88E+02 -	.1.00E-00	2°25E+02
	1064	.000003	4.155+03	65.43	69.93	6.13646E+02	2.94E+03	2.29E-08	2,94E+03	-5.88E+02 <	*1.USE=00	2°25E+02
799		.000406	4.1FE+03	67.24		6.20196E+02	2.94E+03	2.29E-08	2.94E+13	-5.88E+02	*1.98E~88	
739	1)65	.004406	4.15E+03	67.24	77.38	6.2J196E+02	2.946+03	2.29E-88	2.94E+03	-5.885+02	1.085-08	2,25E+02
399	1006		4.152+03	70.10		6.32365E+J2	2.94E+03	2.29E-08	2.94E+03	-5.88E+02 ·	=1.00E=U8	2.252+02
399	1967	.307406	4.155+03	70.10		6.32365E+12	2.94E+03	2.29E-08	2.942+83	-5.88E+02	-1.088-38	2,256 +02
303	1758	.000496	4.15E+03	71.13	63.87	6.36419E+02	2.94E+03	2.29E-96	2.94E+03	-5.8dE+02 4	-1.08E-00	2.25E+02
399	1069	.000938		69.96	65.57	5.091996+02	2.942+03	2.29E-08	2.94E+03	-5.88E+02 ·	-1.03E-08	2.25E+C2
799	1973	.00J127	4.15E+03 4.15E+03	69.96	65.57	5.09199E+02	2.945+03	2.29E-08	2.94E+03	-5.83ë÷02 ·	-1.08£-08	2-252-02
799	1074	.000627		72.06	74.80	5.171735+02	2.94E+33	2.29E-08	2.942+03	-5.83E+02	-1.08E-08	2 ₀ 25€ ♦ 02
399	1175	.000612	4.156+03			5.17073E+02	2.94E+03	2.29E-08	2.94E+03	-5.88E+02 ·	⊃1.08E-08	2 5 25 E + 0 2
799	1076	.000177	4.157+03	72.06	•	5.31608E+02	2.945+03	2.298-08	2.94E+33	-5.88E+02	-1.08E-08	`2,25E¢62
399	1077	.000548	4.155+03	75.33		5.316086+02	2.945+03	2.296-08	2.94E+03	-5.88£+92	-1.08E-08	2.25E+02
399	1078	.000351	4.156+03	75.33		5.36424E+02	2.94E+03	2.29E-08	2.94E+03	-5.88E+02	-1.085-08	.2 a 25E+02
799	1079	.001712	4.155+63	76.50			2.342+03	2.295-08	2.94E+03	-5.88E+02	-1.085-08	2.25E+02
399	1097	.000135	4.1FE+03	75.76		4.09375E+02	2.942+03	2.205-08	2.94E+03	-5.88E+02		2,252+02
399	1985	JJ00813	4.152+03	79.19	71.16	4.196175+02		2.295-08	2.94E+03	-5.88E-02	-1.08E-08	2.25E+G2
399	1887	.100526	4.158+03	82.90	50.85	4.37403E+32	2.94E+03	2.295-08	2.94E+03	-5.88E+92	-1.08E-08	2.25E+02 c
3-3-9	1389	.000999	4.15E+03	84.22	50.78	4.43243E+02	2.942+03		2.94E+03	-5.862.02	e1.08F≈8∂	7.25E+62
399	1997	.300091	4.15E+03	87.62	48.92	3.20473E+02	2.945+03		2.94£+03	-5.00E+02	of ASEwit	25E+02
399	1095	.000202	4.155+03	90.33	65.97	3.32843E+02	2.94E+03			-5.88E 02	~ 2.000 ta 165	25E 02
399	1097	.000002	4.155+03	94.29	53.13	3.55J03E+02	2.94E+03	2.295-08	2.94E+13	a D 2 D D D C A D X	1. COL 11.	(2,52.00
-			•									
							,			•		
			•									
						4 242005.42	6 035-08	-4.90E+03	1.63E+03	9.78500%	G. 578982	-7°.50£+86
1055	1056	.069755	5.17E+03	18.39	18.03	1.31390E+02	6.935-00	-4.90E+03		9.735+81		⇔2°550E¢68
1955	1057	.015740	5.175+03	79.61	76.84	3.97649E+01	5.935-00	-4.90E+03		9.78E+01	6.57E+01	-7°50E+80
1055	1058	. 955797	5.17£+03	35.66		1.17440E+02	0.935-00	-4.96E+03	1.63E+03	9.78E 05		-7 .50E+00
1055	1059	.088759	5.172+03	54.68		8.14442E+01	6.935.700	-4.90E+03	1.63E+03	9.78E+01		->".50E ¢00
1055	1066	.032622	5.17E+03	44.23		1.73384E+02	0.93E-00	-4 00E+03	1.63E+03	9.78E+92		-7.50E+60
1055	1057	.001545	5.17E+33	86.59		1.20736E+02	6.935-00	-4.90E+03	1.63E+03	9.78E¢01	6.575000	-7.50E+00
1055	1069	.022966	5.17E+03	54.34		1.63671E+02		-4.90E+03	1.63E+03	9.78E+01		-7.50E+60
1055	1159	.02382B	5.17E+03	79.36	69.88	1.4u1J4E+02		-4.90E+03		9.78E+01		-7.50E+00
1055	1076	.006480	5.172+03	61.74		2.63104E=02	6.93E-03	-4.90E+03	1.63E+33	9.785431		-7.50E+00
1055	1377	.300043	5.176+03	88.22		2.31442E+02	6.93E-08	-4.90E+03	1.63E+03		C E 7 E 7 D A	-7.50±+00
1055	1978	. 03032	5.175+03	68.16		2.56469E+02		-4.90E+03		9.78E+01	0 0 0 7 (E V U X	-7.50E+6!
1055	1779	.002172	5.17-+33	78.79		2.421105+02	6.93E-08	-4.902+03	1.63E+03	9.785+11	- 0 a 27 ft 9(1) - 6 - 27 ft - 6 7	-7.50E+QC
1055	1786	.001584	5.17E+03	78.12	70.12	3.66338E+02	6.93E-08	-4.90E+03	1.63E+03	9.78E v 45		
1055	1087	.100F007	5.17E+03	88.81	88.49	3.443345+02		-4.9JE+03		9.785401	0.07E/1	-7.50E+00
1055	1307	.000595	5.175+03	74.79	72.84	3.61602E+J2		-4.90E+03		9:78E495	0.072.00	.7.50E 400
1027	1704	.000377	5.17E+03	82.30	82.12	3.51504E+02	6,9₹⊏-08	-4.90E+33	1.63E + 03	9.78E495		→* 50E+ 05

74.78 4.74527E+02 6.93E-08 -4.90E+03 1.63E+03

RADIUS

THETJ

THETT

74.78

5.17c+03

.000427

.800545

1855

1055

1089

1195

AREA

MODEL = CONTAN STEP = 1 PROCESSING OPERATION DATA

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

NONE I	NODE 1	F(I,J)	AREA	THETI	THETJ	RADIUS	NO	RMAL VECTOR	: I	POS	ITION VECT	OR I
1055	1997	.000492	5.1.7E ≠ 0.3	89.10	88.87	4.57731E+02	6.93E-08	-4.90E+03	1.63E+03	9°78E+01		-7.50E+00
1055	រីប៉ូលម៉	.n00293	5.17E+03	78.31	76 • 9ú	4.70980E+J2	6.93E-08	-4.90£+03	1.63E+03	9.78E+01	6.57E+01	-7.50£⊹00
1055	1099	.209134	5.17E+03	84.17	84.03	4.63216E+02	6.935-08	-4.90E+03	1.63E+03	9.78E+01	6.57E+01	-7.50E0.00
1056	1057	. 355300	5.165.03	35.30		1.17440E+02	1.292+31		1.60E+03		-6.57E+01	
1856	1758	.016279	5,16E+03	79.25		3.97649E+D1	1.296+01		1.60E 03		-6.572+31	
1056	1059	"ეკინი _ა	5.16c+û3	54.32		8.244638401	1.29E+01		1.69E+03		-6.57E÷31	
1956	1065	。332530	5.16F÷0₹	44.25	-	1.73396E432	1.029501		1.50E003		-6.57E001	
1856	1357	。123123	5。1 FE	54.78		1.636846402	1,292+01				~6.57E+01	
1056	1058	.001564	5°16E÷03	85.61		1.207545032	1.295+31		1.63E-03		-3.57E 01	
1056	1059	. O 2 ₹ 3 6 6	5°18E+03	70.31		10441196442	1.29E¢01		1.60E003		-6.57E⊹01	
1456	1075	。996×65	5.16E+03	61.61		2.63120E+02	1,298001		1.60E033		⊶6.57E+01	
1056	1077	.C03A27	5°18E°03	63.19		2°56+35E+02	1.292001		1.60F+03		~6.57E +01	
1056	1976	<u>. 377342</u>	50145003	88.39		2.31450E♦82	1.29E÷81		1.60E0D3	9.78E 011	.6.57£∻01	∘7.50€∘00
1056	1979	.002166	5° 16€ 0 0 7	76 a 32		2.421275492	1.296.01	4°30E°03	1.50€8♦03	9.73E0Q1	~6.57£001	~7.50E +0J
1056	1985	a 901597	5.18E<03	70.22		3。663555€♦82	1.295+01	4.90£03	1.63E∻ 03	9.78E001	∽6。57E+J1	~7. 50E∻03
1956	1957	_օ ე Բղջել	5,165,03	74077	72.04	3.615205002	1.29E001	4°905°63	1.60E+33	9.70€031	-6.57E+01	~7.50E⊹£3
1056	1088	.00Jun7	5.165003	33,91	80.49	3.46322E¢02	1.29E+01		% 60E ≎33	9.765001	~6.57E+91	ن00÷00€ - 7.
1056	วิวิธิอ	。909423	9°16-403	82.38	82.12	3°212935€	1.29E >01	6.90E033	1.60E 003		⊶6°57€∻01	
1056	1895	. 66 0548	501¢£♦03	74049	74.78	4.74545E+02	%°29E∻01		1.69E083	9.73E+81	-6∘57E⊹01	-7.50E⊹38 6
105 6	1997	.36329i	5.182003	78.43	76.9u	6.70494E002	1.29£+01	७ ० 90 €∻63	2.602v03	9.78∟∻11	~6.57E+01	-7.50E>38 8
1456	1098	. 300002	5。1FE◆03	a 3 . 21	88 c 87	6.57769202	1.290001		1.60E.033		-6.57£¢01	
1056	1039	. 380172	5.18E:03	84.26	84.03	6.63234E+02	1,29£+01	6.90E003	% 60E 03	9.782001	-6.57E 001	-7.50E000
1057	1058	. 061003	D 0 8 8 2 0 € 3	41.95		9.300004061		-3.04E003	2.74E 03	9. 75E - 01		-4.26€00%
1057	1953	。493258	4∘095∻03	57 0 9 7		6.83706E+81		-3:04E<03	2.74E+03	9.78E+91		~6。 24 Ε¢€\$
1057	1065	001950	4°39E+03	85° 20		1.207362402		-3,04£00 3	2.76€033	90782061		-4.24E:08S
1857	1665	。02898 9	4° D0E+03	49.31		1.635715+02		⇔3∘0 45♦03	2,748063	9.76E+01		-4.242+02
1057	1050	.019607	60 J 9£0 6 3	51.96		1.47122E+62		~3.04E003	2.76003	9.78E001		-6.24E:012
105°	1.05 9	o919132	4.095÷03	78.04		3 · 23941E+02		-3°04E÷03	2.748.33	9.785031		··�。24E001
1057	1075	。 993056	დი ეფ£ დე 3	87,76		2°33'465E+0'S		-3°84E003	2.74E003	9.76E091		-4.24E⊹01
2057	ኒያፖና	0004837	ა₀ე ⊲≘ ⊹ე≀	65 ∘4£		2,564695002		~3 ∘⊍4€∘33		9.75E+01	4.65E+01	∾ ७∘24⋶ ♦9%
2ୁ ନେଟ ନେ	<u>1</u> ብንዩ	.002231	ს. კი ლაევ	73 69		2.45?385.02		-3.94E~03	2.74E+33	9.78E/01		-4.24E001
1057	1079	.009405	4°°95°03	83.68		°.33)76E+32		-3.04E003	2.768+03	9.76E401		-4.24E+61
1057	1085	。107009	0 39E 0 4 3	89,49	86.81	3.46394E002		-3.046.003	2076E003	9.78E0J1	4.65E001	-4.24E081
1057	2006	001110	ს იმ^იE 03 3	72.04		3.61502E+02		-3.04E0J3	2.74E+03	9 ₀ 70£901		~4,24E+91
1057	1038	0003457	5 ₀ 원역론6월 3	78.75		3.54419E002	4 a 31E ~ u 8	-3.04E+03	2.748+03	9.78E-31		-4.24€ + 01
1057	g ဂစ ာ	。 ១ ៧५५७७८	4 0 9 F + 0 3	85.74	87.78	3.45405€+02	4.31E-08	-3.04E+03	2.76E+03	9.70E001	4.65E+01	-4.24E001
1037	1995	.091003	6.99E♦93	98.87	69.10	4.57731E+02	4.31£~09	-3.045003	2.74E+03	9.78£001	4.65£¢01	-4.24E+01
1857	1096	. 0013 70	4.09E003	76.90	70.31	4.70880E+02	4.31E-09	-3.04F+03	2.745+03	9.78ë001	4.65E+01	-4.24E+61
1057	1199	001145	6.JSE÷03	81.45	61.65	6.85387E+02	4.315-98	-3.04E+83	2.765>03	9.70E 001		-4.248001
1097	1099	.009021	\$.79 E+73	85° 23	88.33	4.58559E+02	4.31E-88	-3.06E+03	2.74E+J3	9.78E+01	4.65E+01	-4.248.01
205 9	1059	. 993268	4.09E+03	57.97		0.83796E001	-4.31E-00	3.04E+03	2.745063		~4.65E+01	
1059	1465	028936	\$ 0 9 E < 0 3	60° તર		\$.63071E+02	-4.31E-08	3.04€03	2°54€÷03			-4.24E+01 .
2058	1066	.031950	40 6 9E+9 3	85.70	86.59	1.20736E+02	-4.31E-08	3.048+03	2.74E+03	9.78E+01	-4.65E+01	-4.24E+01

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLES)

MODEL	=	CONT	4.4	STEP	=	1
PONCES	20	DM T2	ne i	FRATT	M	DATA

NONE I	ר בעסמ	F([+])	AREA	THETT	THETJ	RADIUS	NOR	MAL VECTOR	Ĭ.	Posi:	TION VECTOR I	
1058	1057	.019507	4.09E+03	61.96	61.96	1.47122E+02	-4.31E-08	3.94E+03	2.74E+03		-4.65€+01 -4.24 <u>E</u>	
1056	1769	010132	4.092+03	78.04	83.81	1.23841E+02	-4.31E-08	3.04E+03	2.74E+83	9.76E+01	-4.65E+01 -4.24E	01
1058	1075	104637	4.09E+03	65.41	68.16	2.56469E+02	-4.315-08	3.04E+03	2.74E+03		-4.65E+01 -4.24E	
1058	1076	003954	4.00E+03	87.76		2.31442E+02	-4.31E-08	3.04E+03	2.74E+03	9.78E+01	•4.65€+91 -4.24E	¢01
1458	1077	002231	4.392+03	73.69	73.69	2.462385+02	-4.31E-08	3.046+33	2.74E+13	9.78E+01	-4.65E+01 -4.24E	+01
1058	1079	000435	4.j9E+03	83.68		2,73176E+92	-4.31E-08	3.04E+03	2.74E+03		-4.65E+01 -4.24E	
1058	1085	.001116	4.395+03	72.84		3.61502E+02	-4.31E-08	3.04E+03	2.74E+03		-4.65E+01 -4.24E	
1054	1985	.000009	4.195483	88.49	86.81	3.44704E+02	-4.31E-08	3.04E+03	2.74E+03.		-4.55€¢01 -4.24E	
1858	1037	.000457	4.39E+03	78.75		3.54419E+02	-4.31E-03	3.04E+93	2.74E+03		⊶4.65E+01 ⊶4.24E	
1053	1000	190970	4.00E+03	85.74		3.45405E+02	-4.31E-08	3.94E+03	2.74E033		-4.65E+11 -4.24E	
1058	1095	.760370	4.092.07	76.90	78.31	4.70380E+02	-4.31E-08	3.94E+03	2.74E+03	• • • • •	-4.65E+01 -4.24E	
1058	1976	.00003	4,095+43	38.87	89.10	4.57731E+02	-4.31E-08	3.64€∻03	2.748+03		~4。65E+01 -4。24E	
105A	1097	.007145	4.09=+43	81.45	81.45	4.653976+02	-4.31E-08	3.04E+03	2.74E+03		-4.65E 011 -4.24E	
1058	1990	. 771 21	6.ga_03	86.79		4.58559E+02	-4.31E-08	3.342+03	2.74E+03	9°78E+01	-4.65E♦01 -4.24E	0 0 1
1090	- 7 2 -	4 - 1-1 H - T	405	,			•				•	
1059	1065	.015649	7.87E - 93	69.88	70.36	1.40104E+J2	0.	G a	7.87E-03	9.782÷01	6.72E-09 -5.57E	
1059	1066	015649	7.87E+03	69.85		1.40104E+02	0 .	C .	7.87E+03	9.78E+01	6.72E-09 -5.57E	÷01
1059	1957	.005272	7.675+03	. 83.81	-	1.23141E+02	0.	0.	7.87E+03	9.785+01	6.72E-09 -5.57E	
1059	1758	.005272	7.875+03	83.81		1.233418+02	0.	٥٠	7.875+03	9.78E+01	6.72E-39 -5.57E	
1059	1075	.031425	7.375+03	78.52		2.42110E+32	ů.	O o	7.87E+03	9.78E+61	6.72E-09 -5.57E	209 *81
1059	1376	.001426	7.872+33	79.52		2.42110E+02	0.	0 .	7.876+03	9.78E-11	6.726-09 -5.576	+01 œ
1059	1077	.00146	7.87E+03	36 72		2.33076E+J2	ō.	0.	7.87E+03	9.78E+ji	6.725-89 -5.57€	+C1
1059	1978	000211	7.872+03	86.72		2.33376E+02	0.	8 .	7.87E+03	9.782001	6.72c-09 -5.57E	
	10/5	.000211	7.875+03	82.12		3.51554E+02	ō.	0.	7.87E+03	9.73E+01	6.72E-09 -5.57E	0 B 1
1059		.000281	7.872+03	32.12		3.51564E+02	0.	D o	7.87E+03	9.78E+01	6.72E-19 -5.57E	¢01
1059 1059	1936 1997	.000271	7.87E+03	87.78		3.45405=+02	0.	C .	7.87E+03	9.78E+91	6.72E-09 -5.57E	
		.071036	7.875+03	87.78		3.45405E+02	ů.	0.	7.878+33	9.76E+01	6.72E-09 -5.57E	401
1059	1118 1095	000088	7.872+03	84.03		4.63?162+02	0.	0 0	7.87E+03	9.78E:01	6.72E-09 -5.57E	601
1059		.030088	7.87E+33	84.03		4.63216E+J2	0.	0 .	7.87E+03	9.78E+01	6.72E-09 -5.57E	v61
1359	1095 1397	.010000	7.872+43	86.33		4.58559E+02	0.	. O.	7.87E+03	9.78E+01	6.72E-09 -5.57E	v 0 1
1659		.900011	7.87E+03	39.33		4.58559E+02	0.	0.	7.87E+43	9.78E+01	6.72E-03 -5.57E	+ G 1
1659	1998	* 4300TI	7 4 67 2 4 6 3	99.00	0.0413	40303772.02		•				
1065	1066	-169758	5.17E+03	16.39	18.39	1.31300E+02		-4.90E+03	1.63E+03	-1.62E+01	6.57E+01 -7.50E	+00
1065	1057	.015740	5.17E+03	79.61	76.84	3.97649E+01	6.93E-08	-4.90E+03	1.63E+03	-1.62E÷01	6.57E+01 -7.50E	♦86
	1057	055797	5.17E+03	35.66		1.174408+02	5.93E-08	-4.90E+03	1.63E+03	~1.62E001	6.57E+01 -7.50E	600
1065	1059	.083759	5.174.03	54.68		8.14442E+01	6.935-08	-4.90E+03	1.63E+03	∞1.62E÷G1	6.57E+01 -7.50E	÷00
1065	1076	. 132622	5.17E+03	44.23		1.733845+02	6.936-08	-4.90E+03	1.63E+93	-1.62E+01	6.57E+01 -7.50E	+90
1065		.037522 .001545	.5.17#+03	86.59		1.20736E+02	6.93E-04	-4.90E+03	1.63E+03	-1.62F-99%	6.578+08 -7.505	
1065	1077	.322966	5.17E+03	54.34		1.63671E+02		-4.90E+03	1.63E+03	~1.62E ∘ 31	6.57E+01 =7.50E	+00
1065	1078		5.175+03	70.36		1.40104E+02		-4.96E+43	1.63E+43	-1.62E0U1	6.57E+01 -7.50E	
1065	1079	.023828 .006490	5.17E+03	61.74		2.631046+02		-4.90E+C3	1.63E+03	-1.62E+01	6.57E+01 -7.50E	
1065	1786	0000400	DATLEADS	0.101.2	9 4 9/7							

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLE))

MODEL	=	CONT	AM.	ST	50	#	1	
PROCES	S	ING	OP	RAI	11	HC	DAT	FΔ

PROCESS	SZING OFF	RALION DATA		•									
NODE I	L FOON	F(I,3)	APEA	THETI	THETJ	RADIUS	NOF	RMAL VECTOR	1	POST	TION VECTO	R I	
1065	1087	.000043	5.17E+03	88.22	87.76	2.31442E+02		-4.90E+03	1.63E+03	-1.62E+01	6.57E+01	-7.50E+00	
1-65	1988	.003832	5.175+03	68.16	65.41	2.564695+12		-4.90E+03	1.63E+03	-1.62E+01	6.57E+01		
1055	1089	.302172	5.175+03	76.79	78.52	2.42110E+02	6.93E-08	-4.90E+03	1.63E+03	-1.622+01		-7.50E+00	
1065	1096	.001604	5.17E+03	70.12	70.12	3.66338E+02	6.935-08	-4.90E+03	1.63E+03	-1.622+01		-7.50E+00	
1065	1097	.300007	5.17E+03	88.81	88.49	3.44304E+02		-4.90E+03	1.63E+43	-1.62E+01		-7.50E+00	
1065	1099	.009885	5.17E+03	74.70		3.616325+92	6.93E+38	-4.90E+03	1.63E+03	-1.62E+01		-7.50E+00	
1065	1999	.000427	5,175+03	82.30	82.12	3.51564E+02	6.935-04	-4.90E+03	1.63E+13	-1.62E+01	6.5/E+01	-7.50E+80	
1066	1067	.055797	5.17E+03	35.66		1.17440E+32	-3.352-08	4.9JE+03	1.63E+03		-6,55E+01		
1066	1069	.015740	5.175+03	79.61	76.84	3.976492+01	-3.35E+08	4.90E+03	1.63E+03		-6.56E+01		
1066	1369	.088759	5.175+03	54.68	53.71	8.144+2E+J1	-3.3508	4.9CE+03	1.63E+03		-6.56E+01		
1666	1075	.072572	5.17E+u*	44.23	44.23	1.73004E+02	-3.352-03	4.90E+03	1.634+03		-6.56E+01		
1066	1077	. Ú 22966	5.17_+03	54.34	49.31	1.63671E+02	-3.352-08	4.90E+03	1.63E+03		-6.56E+J1		
1065	1978	091545	5.17E+03	86.59	85.70	1.20736E+02	-3.35E-09	4.90E+03	1.63E+03	-1.62E+91	-6.56E+01	-7.50E+08	
1056	1779	. 023828	5.17E+03	70.36	69.88	1.401342+02	-3.35£-98		1.63E+03	-1.622+31	-6.56E+01	-7.50E+00	
1066	1085	.136480	5.17=+93	61 • 74		2.63104E+02	-3.352-08	4.93E+03	1.63E+03	-1.62č+01	-6.56E+01	-7.502+00	
1065	1337	003832	5.17E+03	68.16	65.41	2.56469E+02	-3.3 5€+08	4.90E+03	1.63E+03		-6.56£+01		
1056	1088	*000043	5.175+03	88.22		2.31442E+u2		4.90E+63	1.63E+03		+6.56E+01		
1665	1009	.002172	5.175+03	76.79	78.52	2.42117E+02	-3.356-98	4.9JE+03	1.63E+33	-1.625+01	-6.56E+J1	-7.50c+00	
1066	1305	.001604	5.175+03	70.12		3.66338E+02	-3.35E-08	4.9JE+03	1.63E+03	-1.62E+01	-6.56E+J1	-7.50E+00	2]
1066	1097	.00185	5.175+03	74.70	72.84	3.61602E+02	-3.35E-08	4.90E+03	1.63E+03	-1.62E+01	-6.56L+01	-7.50E+C0	0
1065	1179	.300007	5.17E+03	88.91		3.44304E+02	-3.35E-08	4.93E+ 0 3	1.63E+03	-1.62E+01	-6.56E+01	-7.50E+00	
1066	1099	.000427	5.17E+03	82.30	82.12	3.51564E+02	-3.35E-08	4.902+03	1.63E+03	∞1.62£+01	-6.56E+01	-7.50E+00	
1067	1458	.061090	4.605+BR	41.95	41.95	9.30000E+01		+3.04E+03		-1.62E+01		-4,24E+61	
1067	1059	。193268	4.00=+17	57.97		4.83784E+01		-3.04E+03	2.74E+13	-1.62E+01		-4.24E+61	
1067	1075	.901950	4.u9£+33	85.70	86.59	1.20736E+02	4.315-08		2.74E+03	-1.62E+01		-4.24E+G1	
1067	1076	.32 988	4,895+83	49.31		1.63671E+02	4.31E-08		2.74E+03	-1.62E+01		-4.24E+01	
1057	1378	.019607	4.u9E+03	61.96	61.96	1.47122E+02			2.74E+03	-1.62E+01		-4.24E+C1	
1967	1079	013132	4.102403	78.04	83.01	1.239416+02		-3.04E+63		-1.62£+01		-4.24E+C1	
1067	1985	.0.0354	4. J 9E+03	87.76	89.22	2.31+42E+02	4.312-08	-3.04E+03	2.74E+03	-1.625+01		-4.24E+61	
1067	1955	.004577	4.19:+03	65.41	60.16	2.564698+02			2.74E+03		4.655+01		
1067	1059	.302271	4.09E+03	73.69	73.69	2.46238E+42		-3.04E+03		-1.62E+31		-4.245+61	
1067	1989	009405	4.09E+03	83.68	85,72	2.33176E+J2	4.31E-08	-3.042+03	2.74E+03		4.65E+01		
1067	1035	.000009	4.595+83	33.49	88.81	3.44304E+02	4.31E-03	-3.04E+63	2.74E+03	-1.622+31		-4.24E+61	
1057	1096	.001118	4.094+03	72.84	74.70	3.61607E+#2	4.312-08	-3.94E+03	2.74E+03	-1.62E+81	4.652+01	-4.242+01	
1057	1099	.009457	4. J9E+03	78.75		3.54419E+02	4.31E-08	-3.04E+03	2.74E+03	-1.625+01	4.65E+J1	-4.24E+01	
1067	1099	.000070	4.095+03	85.74	87.78	3.45485E+02	4.31E-08	-3.04E+03	2.74E+03	-1.62E+01	4.65E+01	-4.24E+01	
1058	1069	0.93268	4.395+03	57.97	73.98	4.83784E+01	-4.31E-08	3.04E+03	2.74E+33		-4.658+81		
1068	1975	023933	4.098+03	49.71	54.34	1.63671=+02	-4.31£-08	3.04€083	2.74E+03		-4.652+01		
1068	1076	.001950	4.092+03	85.77		1.20736E+02	-4.31E-08	3.04E+83	2.74E+03		-4.65E+01		
1068	1977	.019607	4.99E+03	61.96		1.47122E+02	-4.31e-08	3.04E+03.	2.746+03		-4.65E+01		
1058	1079	010037	4.902+33	78.04		1.23341E+02	-4.31E-08	3.04E+03	2.74E+03		-4.65E+01		
1858	10.5	.004837	4.305.493	65.41		2.56+69E+02	-4.31E-08	3.04E+03	2.74E+03		-4.65 <u>E</u> +91		
1058	1485	.000054	4.39E+03	87.76	d8.22	2.31442E+92	-4.31E-08	3.04E+03	2.74E+03	-1.625+01	-4.65£+J1	-4.24E+01	
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SHUTTLE CONTAMINATION STUDY (SPACE LA93 (RECIEVING SHUTTLE))

MODEL = CONTAM STEP = 1
PROCESSING OPERATION DATA

NOGE T	NOME J	F(I,J)	AREA	THETI	THETJ	RADIUS	NORMAL VECTOR I		I	POSITION VECTOR I		
1068	1097	.002231	. 4.09E+03.	73.69	73.69	2.46238E+02	-4.31E-08	3.04E+03	2.74E+03	-1.62E+01	-4.65E+01 -6.24E+0	11
1.058	1039	. ეეო4ო5	4.09E+03	83.68	85.72	2.33075E+02	-4.31E-08	3.04E+03	2.74E+03	-1.62E+01	-4.65E+01 -4.24E+0	1
1050	1395	071118	4.196+13	72.84		3.616J2E+02	-4.31E-08	3.04E+03	2.74E+03	-1.62E+91	-4.65E+01 -4.24E+0	1
	1096	.000009	4.09E+03	88.49		3.443046+02		3.04E+03	2.74E+03	-1.62E+01	-4.65E+01 -4.24E+0	11
1068 1058	1090	.003457	4.095+03	78.75		3.54419E+02	-4.315-00	3.J4E+03	2.74E+03	-1.62E+J1	-4.65E001 -4.24E+0	11
	1999	.000070	4.09E+03	95.74		3.45405E+02	-4.31E-08	3.04E+03	2.74E+03	-1.62E+01	-4.65E+01 -4.24E+0	. 1
1055	1,422	• 209036	4403010	378.4	0.0.0	,						
1069	1075	.015649	7.872+03	69.38	70.35	1.48104E+02	ů.	0.	7.87E+03	-1.62E+01	7.60E-09 -5.57E+0	
1959	1076	.015649	7.87£+03	69.89		1.401045+02	o'.	0.	7.87E+03	-1.62E+01	7.60E-09 -5.57E+0	•
1069	1977	.005272	7.87E+03	33.81		1.233415+02	Ũ•	0.	7.87E+03	-1.62E+01	7.60E-09 -5.57E+0	
1059	1073	.005272	7.875+93	87.81		1.23941E+02	û.	0.	7.87E+03	-1.625+91	7.60E-09 (-5.57E+0	
1069	10.5	011426	V. 97F+03	78.52		2.42110E+02	0.	0.	7.87E+03	-1.62E+01	7.60E-09 -5.57E+0	11
1069	1035	.001436	7.876+03	78.52		2.42110E+02	Ú.	0.	7.87E+93	-1.622+91	7.60L-09 ~5.57E+0	11
1069	1087	.303211	7. A7E+03	85.72		2.33176E+02	0.	0.	7.87E+03	-1.62E+31	7.606-39 -5.576+0	
1859	1007	.000211	7.87E+03	85.72		2.330756+02	0.	C .	7.87E+03	-1.62E+01	7.60E~09 -5.57E+0	
1069	1095	.000211	7.87=+03	82.12		3.51564E+02	0.	0.	7.87£+03	-1.622+01	7.60E-09 -5.57E+1	
1069	1095	.000281	7.87E+03	82.12		3.515645+02	0.	0.	7.87E+03	-1.62E+01	7.6JE-33 ~5.57E+1	
	1097	.000136	7.875+03	87.78	65.74	3.45405=+02	9.	0.	7.87E+03	-1.62E+01		
1069 1069	1097	.000036	7.87E+03	87.78		3.45405E+02	8.	0.	7.87E+33	-1.52E+01	7.606-09 . 5.576+0	11
1009	LUSS	• 1100000	14312100	J. 4. J	0,,,,		• •					53
					_							
					•							
1975	1076	.069758	5.17E+03	18.39		1.31300E+02		-4.90E003		-1.30E+02		
1075	1077	015740	5.17E+03	79.61	76.84	3.97649E+01		-4.90E003	1.63E+03	-1.30E+02	6.57E+01 .7.50E+	
1975	1078	.055797	5.17E+3	35.66	24.69	1.17440E+02	6.93E-08	-4.90E+03			6.57E+01 -7.50E+	
1075	1079	088759	5.17E+03	54.68		8.144425+11	6.93E-08	-4.9CE+03	1.63E+03	-1.30E+02	6.57E+01 -7.50E+	
1075	1396	072622	5.17E+03	44.23	44.23	1.735942+02		-4.90E+03	1.63E+03		6.57E+31 -7.50E+	
1075	1087	0015+5	5.17E+u3	86.59		1.20736E+02		-4.90E+03	1.63E+03	-1.30E+02	6.57E+01 -7.50E+1	
1875	1934	. 122966	5.17E+83	54.34	49.31	1.635715+02	6.932-08	-4.90E+03		-1.30E+02	6.57E+01 -7.50E+	
1075	1989	023828	5.17E+03	70.35	69.88	1.40104E+02	6.93E-0d	-4.90E+03	1.63E+03	+1.302+02	6.57E+01 -7.50E+	
1075	1095	196480	5.176+33	61.74	61.74	2.63194E+02	6.935-08	-4.90E+83	1.63F+03	-1.30E+32	6.57E+01 ∞7.50E+	
1075	1097	993943	5.17E+03	88.22	87.76	2.31442E+02		-4.90E+03	1.63E+03	-1.30E+02	6.57E+01 -7.50E+	
1075	1096	.003832	5.175+03	68.16	65.41	2.55469E+02	6.93E-08	-4.90E+03	1.63E+03	-1.30E+02	6.57E+Q1 =7.50E+	
1075	1099	.302172	5.178+03	78.79		2.42110E+02	6.93E-08	-4.90E+03	1.63E+93	-1.30Ē+ū2	6.57E+01 -7.50E+	00
10"	1037	* 3061.2	J						4.435.63	4 305.00	6 505.04 .7 505.	0.0
1076	1077	.055797	5.17E+03	35.66		1.174436+02			1.63E+03		-6.56E+01 -7.50E+	
1076	1078	.315740	5.17E+03	79.61		3.976+9E+01			1.63E+03		-5.56E+01 -7.50E+	
1076	1079	.083759	5.17£+03	54.68		8.14442E+J1		4.90=+03	1.63E+u3	-1.50E+J2	-6.56E+01 -7.50E+	0.0
1075	1045	.132622	5.17E+03	44.23		1.73334E+02			1.63E+03	01.30E+02	-6.56E+01 -7.50E+	Ų U
1076	1987	022966	5.175+83	54.34		1.635712+02			1.63E+03		-6.56€+J1 ∞7.50€+	
1076	1989	991545	5.172+03	86.59	85.70	1.267352+02	-3.355-08	4.90E+03	1.63E+03		-6.56E+01 -7.50E+	
1076	1949	.023828	5.175+03	70.36	69.88	1.401046+02	-3.356-08	4.90E+03	1.63E+03	-1.3Uc+UZ	+6.56E+01 =7.50E+	ψ U
1076	เกิดตั้	- Nu648u	5-175+03	61.74	61.74	2.63134E+02	-3.352-08	4.90E+03	1.632+03	-1.50c+02	-6.56E+01 -7.50E+	UU

MODEL = CONTAM STEP = 1 PROCESSING OPERATION DATA

SHUTTLE CONTAMINATION STUDY (SPACE LABS (RECIEVING SHUTTLED)

NODE I	NOUE 1	F(I,J)	AREA	THETI	THETJ	RADIUS	NORMAL VECTOR I			POSITION VECTOR I			
1076	1097	.003832	5.17E+03	68.16	65.41	2.56469E+12	3.35E-08	4.90E+03	1.63E+03	-1.30E+92	-6.56E+01	-7.50E+00	ł
10°6	1999	。000043	5。17E+03	88.22	87.76	2.31442E+42	~3.35E=08	4.90E+03	1.63E+03	-1.30E+02	-6.56Fe01	-7.50E+00	i
2076	1099	. 102172	5.17E+03	76.79		2.52110E+02			1.63E+03			-7.50E+80	
1077	1978	.061990	4.39E+03	41.95		9.30J0BE001		-3.04E+03	2.74E0J3			-4.24E+01	
1077	2079	。193248	\$ ∘ÿ9€¢₽3	57.97		4.83784E+69		~3.04E+03	2.76E003	-1.30E+02	4.65E+01	-4.24E.001	
1677	4945	.0°1950	4.99ē¢63	85.70		1.20736E+02		-3.04E.03	2.76E003	-1.30E+02	4.656.01	-6.24E+61	
1077	1,456	o J 28908	4.39E.03	49.31	54.34	1.0636715+02	6.31E-08	-3.04E+83	2.76E+03	-1.30E+92	4.65E031	-4.24E+01	
1 በ የ የ	1089	。319607	4.09E+13	61.96	51,96	1.47122E+02	4.315-08	-3.04E+63	2.74E+13	-1.30E+02	4.65E +01	-4.24E001	
1077	1989	0710132	დებვთმატ	79.04	33061	1.233415002		-3.04E+03	2.76E003	-2.30c+02		-4.242.01	
1 ሮንን	1095	。 <u>ეეე</u> ინ4	4.09E003	87.76	88.22	2.31542E+02	4.31E-08	~3.04E+03	2.74E+93	~1.30E+02		-4.24E+61	
1077	1996	0004837	4. JOE+N3	65,41	. 6A.16	2.564695002		-3.04E+03	2.74E.J3	-1.30E∘J2		-4.24500%	
1077	1938	.00∠271	4. 095 ♦0₹	73,69	73.69	2.46238E+02		-3.04E+03	2.74E+03	-1.30c+02		-4.24E+C1	
1077	1099	。 ໆ ™0 405	ፋ _፡ በባይቀ በ ኝ	83.60		2.331762+02		-3.04E+Q3	2.748003	-1. 70F+02		-4.24E+01	
1078	1070	.093260	4.992003	57.97		4.837442+01	o 4. 31€ o 98	3.04€ 03	2.74E.03	-2.30E+62	-4.65E+01	-4.262031	
1028	1985	。92899 8	७०००€० 03	43.31	56.34	1.63571E+02	-4.31E-08	3.04E003	2.74E>03	-1.30E+02	04.65E+J1	-4.24E051	
1978	1036	。@01950	4.00 9.03	85.70		1.20736E+02	~4°31€~08	3.04E+03	2.7⊹E+33	-1.30E+02	-4.65E+11	-4.26E+91	
1.478	ቀ የ ፍ ን	.019607	4° ⊌2° + 43	61.96	61.96	1.47122E+02	-4.31e-08	3.04€≎03	2.74E-03	≈1°30±+02	-4.65E+01	-6.26E+61	
1078	1099	.010132	\$ 0 0 0 0 € 0 0 3	78.04	83.81	1.23901E+02	-4.31¢-08	3.04E+03	2.74E+J3	-1.30E+02	-4.65E v01	-4.24E+01	~
1078	11115	0004837	\$4°0 n d j ÷ 0 3	65.41	68.16	2.56469E002	-4.315-08	3.042+03	2.74E003	-1.30E+02	-4.65E+01	-4.24E+01	⊱ 2
1078	1096	.000054	4.09E+03	87.76	88.22	2.314626002	-4.31E-98	3.04E+03	2.74E+03	91.30£+02	-4.65E.01	=4.24F+P1	10
1078	1037	.0022 ⁷ 1	40 በዓርዮβ3	73.69	73.69	2.40?38E+02	-4.31E-08	3.04E+03	2.74E+03	-1.39F+02	-4.65E+J1	wh 242-01	
1678	1999	.90;405	4.u9ē+03	89.68	86.72	2.33076E+02	~4.312-08	3.04E+03	2.74E+03	-1.3JE+02	~4.65E¢01	-6.24E+C1	
1079	1095	.015649	7.87E+03	69.68	70.36	1.40104E+02	G a	0 •	7.87E+03	-1.30E+02	8.49E-89	-5.57E+01	
1079	1695	。015649	7.87E+43	69.38	70.36	1.40104E+J2	હો •	0.	7.87E+03	~1.33E+02		-5.57E+01	
1079	1087	005272	7°07E403	83.81	78.04	1.23841E+02	D e	Q e	7.87E+03	-1.3BE+02		-5.57E+01	
ያ D ው C	1098	.905272	7•875 +93	83.81	78.94	1.23341E+02	0.	0.	7.87E+13	-1.33E+02		≈5.57E÷01	
1079	1095	.001426	7.87E+03	79.52	78.79	2.42110E+02	0 •	0 0	7.87E+03	-1.30E+02		-5.57E÷01	
1020	1006	0301476	7.975+93	78.52	78.79	2.42110E+02	0 .	S .	7.87E+03		A-49F-09	-5.57E+01	
1079	1997	.000211	ም•ፅም⊑ቀ03	86.72	83.68	2.33976E+42	0 .	0.	7.87E+03	-1.30E+02	8-49E-09	-5.57E+01	
1079	1098	.007211	7.87E+03	86.72	83.68	2.33076E+02	0 o	0.	7.87E-33	-1.30E+02		-5.57E+01	
									*				
1885	1036	.089758	'S。17E÷03	18.39	ሳል ፑው	1.31370E002	G 025-64	-4.906003	4 675.67	A	d 41 50 44		
1085	2007	015740	5.17E+03	79.61		3.97649E+01		-4.90E003	1.63E+03 1.63E+03	∞2°46€+02		-7.50E+60	
1065	1088	099797	5.17E+03	35.86		1.017440E+02		~4.96E+63	1.63E+93	-2.44E+02	6.57E+81	-7.50E+00	
1085	1989	003759	5.175003	54.68		8-144425+01	6.075.00	-4.90E+03.	1.63E+03	-2.44E+02	5.57E+01	-7.50E+00	
1035	1496	0 72522	5.17E+03	44.23		1.73384E+02	8-032-40 06305-30	-4.98E+03	1.63E+U3	-2.44E+02	6.57E+01	-7.50E+00	
1005	1097	.001545	5.17E+03	85.59		1.20736E+J2		-4.96E+63	1.63E+03	-2.44E+02 -2.44E+02	6.57E+01	-7.50E+80 -7.50F+00	

SHUTTLE CONTAMINATION STUDY (SPACE LAB3 (RECIEVING SHUTTLE))

MODEL = CONTAM STEP = 1 PROCESSING OPERATION DATA

P4001232144 0-5-41104 04 4				THETI	TT THETJ	RADIUS	NORMAL VECTOR I			POSITION VECTOR I			
NO DE T	MODE J	F(T,J)	AREA	14611						-2.44E+02	6 E7E101	_7.505400	
1085	1099	.023828	5.17E+03	7ú.36	69,88	1.401045+02	6.93E-08	-4.90E+03	1.635+43	,			
			·		21 50	1.17+40E+02	-3.35E-08	4.90E+03	1.63E+03	-2.44E+02	-6.56E+01	-7.50E+CO	
1036	1047	.155797	5.17E+03	35.66	24.07	1.17440E+02	-3.35E-08	4.90E+03	1.63E+03	-2.44E+02	-6.56E+01	-7.50E+00	
1086	173R	.015740	5.17E+03	79.61	76.84	3.976495+31	-3.35E-08	4.90E+03	1.63E+03	-2.446+02	-6.56E+01	-7.505+00	
1085	1099	.988759	5.17E+03	54.68	53./1	8.14442E+01	+3.35€+08	4.90E+03	1.63E+03	-2.44E+32	-6.56E+01	-7.53E+60	•
1086	1095	.032622	5.175+03	44.23	44,23	1.73384E+02		4.90E+03	1.632+03	-2.44E+02	-6.56E+01	-7.50E+00	
1586	1097	122966	5.175+03	54.34	49.31	1.63671E+02	-3.35E-08		1.63E+03	-2.44E+02	-6.56F+01	-7.50E+G0	
1085	1094	.031545	5.176+03	86.59	85. ₹0	1.20736E+02	-3.35E-08	4.90E+03		-2.442+02	+6.56F+11	-7.50E+60	
1096	1099	.023828	5.175+03	70.36	69.88	1.40104E+02	-3,35E-08	4.90E+03	1.63E+03	-51445.05	-01702.02	,	
1075	1023	. 524044								0 //=.03	. CECADA	-4.24E+01	
	4.500	.061000	4.096+03	41.95	41.95	9.30330E+01	4.31E-08	-3.04E+03	2.748+03	-2.44E+02			
1087	1088	.093208	4.19E+03	57.97	73.98	4.83794E+01	4.315-08	-3.04E+03	2.74E+03	-2.44E+0?		-4.24E+01	
1047	1039		4.392+03	55.70	86.59	1.20736E+02	4。31E-28	+3.042+03	2.74E+03	-2.44E+02		-4.24E+01	
1087	1075	.001950	4.092+03	49.31		1.636715+02	4.315-08	-3.B4E+03	2.74E+03	-2.445+02	4.652+01	-4.24E+01	
1097	1095	.025988		61.96		1.471225+02	4.31E-08	-3.04E+03	2.74E+03	-20442002	4.65E+01	-4.24E+01	
1087	1 103	.019607	4.092+03			1.23341E+92	4.31=-08	-3.04E+03	2.74E+03	-2.44E+92	4.65E+01	-4.24E+01	
1057	1799	.019132	4.J9E+87	78.04	03.91	10501470.10	400 4 - 40				•		
					97 04	4.83784E+01	-4.31E-08	3.042+03	2.74E+03	-2.44E+02	-4.65E+J1	-4.24E+01	
1093	1189	<u>.093268</u>	4. g gE+03	57.97			-4.31E-08	3.04E+03	2.74E+03	-2.44E+02	-4.65£+01	-4.24E+01	
1088	1075	028938	4.095+03	49.31	54.34	1.63571E+02	-4.315-08	3.04E+03	2.74E+03	-2.44E+32	-4.65E+01	-4.24E+01	ગ
1048	1,005	.001950	4.495+03	85.70	86.59	1.20736E+02		3.04E+03	2.74E+03	-2.44FeN2	-4.65E+01	-4.24E+81 (
1088	1007	.019607	4.J9E+#3	61.96	61.96	1.47122E+02	-4.31ē-09		2.74E+03	-2.44E+02	-4.65F+01	-4.245+01	
1080	1099	010132	4.095+03	78.C4	83.81	1.23941E+02	-4.31E-08	3.04E+03	2.146703	- 50 447.05	- 11072.01	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
1000	4922	••••						_		4 666103	0 705-00	-5.57E+81	
45'95	1095	.015649	7.97=+03	69.88	70.36	1.40104E+02	0•	G .	7.87E+03	-2.44E+02		-5.575+01	
1089	1076	015649	7.872+03	69.88	70.36	1.40104E+02	0.	0 •	7.87E+13	-2.442+02			
1039		005272	7.87E+03	83.81	78.04	1.23341E+02	Û o	0.	7.87E+J3	-2.44E+02		-5.57E+01	
1089	1097	=	7.87E+33	83.81		1.239416+02	0.	0 •	7.87E+93	-2.44E+02	9.38E-09	-5.57E+01	
1089	1198	.005272	7.072743	,,,,,									
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				,					4 475,47		6 E7F + 0 4	-7.50E+90	,
1095	1096	.069758	5.175+03	18.39	18.39	1.31300E+02	6.93E-08	-4.90E+03	1.63E+03	-3.58E+02		-7.50E+00	
1095	1097	.015740	5.17E+03	79.51	76.84	. 3.97649E+01	6.93E-08	-4.90E+03	1.63E+03				
	1098	055797	5.175+03	35.66	24.69	1.1744GE+02		-4.90E+03	1.63E+03	-3.582002	6.5/6+01	-7.50E+00	
1095	1090	.088759	5.175+03	54.60	53.75	8.14442E+81	6.93E-08	-4.90c+03	1.63E+03	+3.58E+82	6.5/6.01	-7.50E+00.	
1095	103	*000175	3.2.2.44			. 1	9 766-80	4.90E+03	1.63E+03	₩3.58F+02	-6.56F+01	-7.50E+00	
1096	1097	.055797	5.175+03	35.66	24.69	1.17440E+02	-3.359-08			- 34 70 C + 0 C	-E. 56EAN4	-7.50E+60	
1096	1098	.015740	15.175+93	79.61	76.8	4 3.97649E+01	-3.35E-08			-3470ETUL	-5.50EF01	-7.50E+80	
1096	1099	988759	5.175+03	54.68	53.7:	1 8.14442E+01	-3.35E-08	4.90E+63	1.63E+03	-3.706406	-04305401		
*n20	2077	• • • • •					·	- A	0 7/5 5-			_h_0/E+64	
1097	1098	.061808	.4.09E+03	41.95	41.9	9.30300E+01	4.31E-03	-3.04E+03	2.74E+03	+3.58£+02		-4.24E+01	
	1099	. 993268	4. u 9E+07	57.97	73.9	8 4.83784E+01	4.31E-08	-3.04E+03	2.74E+ú3	-3.58E+Q2	4.076+01	4.24E+01	
1097	1077	• 9 3 G C G G										. 515.51	•
1.098	1099	. 043266	4.396+03	57.97	73.9	8 4.83784E+Q1	-4.31E-08	3.042+03	2.74E+03	-3.58E+02	-4.65E+01	-4.242+61	i